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# SMOS

## SUMMARY OF METEOROLOGICAL OBSERVATIONS, SURFACE

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STATION: #23239 Alameda, CA  
PERIOD: DAILY 3/45-12/86  
HOURLY 1/55-12/86

JOB NO. TASK RNSAB2KB DATE October 2, 1988

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This data report consists of a six part statistical summary of surface weather observations. The six parts are: Part A - Weather Conditions/Atmospheric Phenomena, Part B - Precipitation/Snowfall/Snow Depth, Part C - Surface Winds, Part D - Ceiling versus Visibility/Sky Cover, Part E - Psychrometric Summaries, Part F - Station Pressure/Sea Level Pressure,		

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From: Officer in Charge, Naval Oceanography Command Detachment Asheville

Subj: SUMMARY OF METEOROLOGICAL OBSERVATIONS, SURFACE (SMOS)

1. Discussion. This edition of the SMOS was produced utilizing a revised software package. The product has been expanded to include station climatic summary tables and is considered a stand alone publication. This update includes the period of record (POR) through 1986 for all hourly and daily data. Our revised production methodology incorporates two computerized editing phases after the initial processing stage and a manual review and intervention of suspect data prior to the print phase. Every effort has been made to produce at least a 99.9 percent data perfect product based on the stations observation data. We have switched to a direct computer printout on standard computer paper instead of the previous print format. This results in a 85 percent print cost savings over our old specialized print format.

2. Weather Conditions. This summary is a percentage frequency occurrence of various atmospheric phenomena and obstructions to vision, derived from 3-hourly observations, and is presented in two tables as follows:

Table 13 By month, all years combined, by standard 3-hour groups and all hours combined.

Table 14 By month and annual, all hours and years combined, by wind direction.

Occurrences of the various phenomena included in each category on the forms are listed below:

- a. Thunderstorms - All reported occurrences of thunderstorm, tornado, and waterspout.
- b. Rain and/or drizzle - All liquid precipitation, falling to the ground, not freezing.
- c. Freezing rain and/or freezing drizzle (glaze) - Precipitation falling in liquid form, but freezing on contact with an unheated surface.
- d. Snow and/or sleet - Included are snow, sleet, snow pellets (soft hail), snow grains, and ice crystals.
- e. Hail - Occurrences of hail and small hail are included.
- f. Percentage of observations with precipitation - Included in this category are the observations when one or more of the above phenomena occurred. Since more than one type of precipitation may be reported in the same observation, the sums of the individual categories may exceed the total columns.
- g. Fog - Included are fog, ice fog, and ground fog.
- h. Smoke and/or haze - Occurrences of smoke, haze, or combinations of smoke and haze are included.
- i. Blowing snow - Occurrences of blowing snow also drifting snow when reported from non-WBAN sources.
- j. Dust and/or sand - Included are blowing dust, blowing sand, and dust.
- k. Blowing spray - This item if reported, is not shown in a separate category on this table but is included in the computation Percentage of Observations with Obstructions to Vision.

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1. Percentage of observations with obstructions to vision - Included in this category are the observations when one or more of the above obstructions to vision occurred. Since more than one type of obstruction may be reported in the same observation, the sums of the individual categories may exceed the percentage total columns. Also, although precipitation may reduce visibility, it is not considered an obstruction to vision for purposes of this summary; therefore, the percentage total of obstructions to vision need not reflect the total observations with reduced visibility.

NOTE: The total number of observations may vary among tables within the same month and period. Percentages may not always equal 100.0 due to rounding practices.

3. Atmospheric Phenomena Table 36: This summary is a presentation of the percentage of days with occurrences of various atmospheric phenomena. These data are obtained from all recorded information on the reporting forms and combined into a daily observation.

a. The descriptions of the phenomena in the Weather Conditions Summary above also apply for the categories summarized in these tabulations. However, it should be noted that in this summary the columns headed "% OF OBS WITH PRECIP" and "% OF OBS WITH OBST TO VISION" show the percentage of days rather than percentage of observations. Since more than one type of precipitation or more than one type of obstruction may occur in the same daily observation, the sum of the values in the individual columns may not equal the total columns.

b. This presentation is by month with annual totals, and is prepared with all years combined.

NOTE: A day with rain and/or drizzle was not separately reported in WBAN data prior to January 1949. Therefore percentages in this column are restricted to the period January 1949 and later.

A day with dust and/or sand was punched and included in this summary only when visibility was less than 5/8 mile.

4. Precipitation, Snowfall and Snow Depth. These elements are presented using the daily amounts and extreme value.

a. Tables 8, 9, and 10 provide for each element separately the percentage frequency of various daily amounts, by month and annual, all years combined. The percentage of days with measurable amounts is also computed monthly and annually. Also shown for the precipitation and snowfall tables, are the monthly mean amounts, annual mean amounts (sum of monthly mean amounts), and the extreme monthly amounts (greatest and least).

b. Table 21 for each element presents the extreme daily amounts by individual month and day for the entire period of record available.

c. Tables 23, 24, and 25 provide for each element separately individual year and month extreme daily amounts and the means and standard deviations for each month and annual for all months combined.

NOTE 1: Snow depth was recorded and punched at various hours during the period available from U.S. operated stations. The periods and hours used in the snow depth summary vary by service and period as follows:

U.S. Navy and Weather Bureau Stations:

From beginning of record thru Jun 52 - Snow depth at 0030 UTC  
Jul 52 - May 57                      Snow depth at 1230 UTC  
Jun 57 - present                      Snow depth at 1200 UTC

NOTE 2: Hail was included in snowfall occurrence in the summary of the day observation prior to Jan 1956, and after Dec 1979.



## 5. Surface Winds.

a. Extreme Values - Peak Gusts Table 27: Derived from daily observations and presented by individual year and month for the entire period of record available. Speeds are presented in knots, while directions are given in 16 compass points from the beginning of record through 1963, and in tens of degrees starting in January 1964. When 90% or more of the daily observations of peak gust wind data are available for a month, the extreme is selected and printed. These values are then used to compute means and standard deviations for the entire period. Every month of a year must have valid observations present before the ALL MONTHS value is selected for that year. Means and standard deviations are computed when four or more values are present for any column. A supplementary list of Peak Gusts by year-month with <90% observations reported is also provided.

b. Bivariate percentage frequency tabulations: Derived from hourly observations, these tabulations are a percentage frequency of wind directions to 16 compass points and calm by wind speeds (knots) in increments of Beaufort classifications. Percentages are shown by both direction and speed, and in addition the mean wind speed for each direction. A separate category is provided on the form for variable winds, which are reported in some data sources. In these data where light and variable winds are reported with no directions but with speeds given, the speeds will be summarized in the appropriate groups opposite the column headed VARBL.

Table 1 contains three presentations prepared for all surface winds included, and for all years combined as follows:

- (a) By month - by standard 3-hour groups
- (b) By month - all hours combined
- (c) Annual - all hours combined

6. Ceiling Versus Visibility Table 2. This summary is a bivariate percentage frequency distribution by classes of ceiling from zero to equal to or greater than 20,000 feet and as a separate class "no ceiling", versus visibility in 16 classes from zero to equal to or greater than 10 miles. Data are derived from 3-hourly observations, and three sets of tables are presented as follows:

- (a) By Month - by standard 3-hour groups
- (b) By Month - all years and all hours combined
- (c) Annual - all years and all hours combined

Due to the cumulative nature of this presentation, it is possible to determine the percentage frequency of occurrence for any given limit of ceiling or visibility separately, or in combination of ceiling and visibility. The totals progress to the right and downward. Ceiling may be determined independently by referring to totals in the extreme right hand column. Also, visibility may be determined independently by reference to the horizontal row of totals at the bottom of the page. The percentage frequency for which the station was meeting or exceeding any given set of minimal may be determined from the figure at the intersection of the appropriate ceiling column and visibility row. Several examples in the use of these tables are shown on on the following pages.

Beginning in July 1948 for U. S. Air Force stations and January 1949 for National Weather Service (NWS) and U.S. Navy stations the "no ceiling" category consists of observations with less than 6/10 total sky cover and those cases where total sky cover is 6/10 or more, but not more than 1/2 of the sky cover is opaque.

# EXAMPLES FOR USE OF CEILING VERSUS VISIBILITY TABLES IN THIS TABULATION

CEILING (FEET)	VISIBILITY (STATUTE MILES)											
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2 1/2	≥ 2	≥ 1 1/2	≥ 1 1/4	≥ 1	≥ 3/4	≥ 5/16
NO CEILING												≥ 0
≥ 1800												
≥ 1500					91.0							92.6
≥ 1200												
≥ 1000												
≥ 900												
≥ 800												
≥ 700												
≥ 600												
≥ 500								97.4				98.1
≥ 400												
≥ 300												
≥ 200												
≥ 100					95.4							100.0
≥ 0						96.9		98.3				

EXAMPLE # 1: Read ceiling values independently of visibility under column at right headed > 0. For instance, from the table:

Ceiling ≥ 1500 feet = 92.6%.  
Ceiling ≥ 500 feet = 98.1%.

EXAMPLE # 2: Read visibilities independently of ceilings on bottom line opposite > 0. From the tables:

Visibility ≥ 3 miles = 95.4%.  
Visibility ≥ 2 miles = 96.9%.  
Visibility ≥ 1 mile = 98.3%.

EXAMPLE # 3: To obtain combinations of ceiling with visibility, read figure at intersection of the two categories; i.e.: Ceiling ≥ 1500 feet with visibility ≥ 3 miles = 91.0%.

EXAMPLE # 4: Values below minimums stated in the table may be obtained by subtracting the value given in the table from 100%. Thus, to obtain the percentage of observations with ceiling < 1500 feet and/or visibility < 3 miles, subtract the value read from the table at the intersection, which is 91.0, from 100.0. The answer 9.0 is the percentage of observations with ceiling < 1500 feet and/or visibility < 3 miles.

Likewise, the percentage of observations with ceiling < 500 feet and/or visibility < 1 mile is 2.6, obtained by subtracting 97.4 from 100.0.

EXAMPLE # 5: To find the percentage of observations falling within the two categories given in example above, subtract the value read from the table for the first set of limits from the value in the table for the second set of limits. The difference will be the percentage of observations meeting the lower set of limits, but not meeting the higher set of limits.

The value 91.0 read from the table at the intersection of  $\geq 1500$  feet with  $\geq 3$  miles, subtracted from 97.4 read from the table at the intersection of  $\geq 500$  feet with  $\geq 1$  mile is equal to 6.4%. Thus; 6.4 percent of the observations meet the criteria: ceiling  $\geq 500$  feet with visibility  $\geq 1$  mile, but  $< 3$  miles; or ceiling  $\geq 500$  feet, but  $< 1500$  feet with visibility  $\geq 1$  miles.

Since these tabulations are prepared in several ways including by month, by 3-hour groups it is possible to determine diurnal variations of ceiling and visibility limits as well as probabilities of various ceiling-visibility combinations.

7. Sky Cover Table 11. This summary is prepared from 3-hourly observations and is a percentage frequency distribution of total sky cover (see Note 3) and total number of observations. It is presented as follows:

By month and annual - by standard 3-hour groups, and all hours combined.

NOTE: #1: Sky cover (total cloud amount) was not reported by U.S. Services until mid 1945. Data, when available, were punched for Air Force stations beginning in 1946, but were not available for Navy stations until 1948 or 1949. NWS stations recorded total cloud amount in remarks beginning sometime in 1945, but few stations have punched data prior to 1948. This summary will, of course, be limited to period of available data.

NOTE: #2: Some data sources used for this summary report cloud amounts in oktas. These have been converted to tenths prior to summarizing, and notation is made on the form to indicate that data were originally reported in oktas. The manner of conversion is given below:

OKTAS	TENTHS
0	0
1	1
2	3
3	4
4	5
5	6
6	8
7	9
8 (or obscured)	10

NOTE: #3: Beginning in 1981 the symbols of Clear, Scattered, Broken, Overcast, and Obscured were used as input for the Total Sky Cover. Following are the conversions:

0/10 equates to clear  
 1/10 to 5/10 equates to scattered  
 6/10 to 9/10 equates to broken  
 10/10 equates to overcast

#### 8. Psychrometric Summaries.

a. Cumulative percentage frequency of occurrence - derived from daily observations and presented by month and annual for all years combined. These tabulations provide the cumulative percentage frequency to tenths of temperature by 5-degree Fahrenheit increments, plus mean temperature, standard deviation, and total number of observations in three separate tables as follows:

Table 5 Daily maximum temperature  
Table 6 Daily minimum temperature  
Table 7 Daily mean temperature

b. Daily Average/Extreme Temperatures Table 29 derived observations and presented for each month and day for entire period of record available are average temperature, average and extreme maximum temperature, average and extreme minimum.

c. Extreme values - derived from daily observations with extreme value given for each year and month of record available. Extremes are provided for a month if all days for a month contain valid observations. All months for a year must have valid extremes before the ANNUAL value is selected for that year. Means and standard of daily extreme temperatures are prepared:

Table 30 Extreme maximum temperature

Table 31 Extreme minimum temperature

NOTE: A supplementary list also provides extreme temperatures when less than a full month is reported.

d. Bivariate percentage frequency distribution and computations of dry-bulb versus wet-bulb temperature Table 3. This tabulation is derived from 3-hourly observations and is presented by month and annual, all hours and all years combined. The following information is provided:

(1) The main body of the summary consists of a bivariate percentage frequency distribution of wet-bulb depression is 17 classes spread horizontally; by 2-degree intervals of dry-bulb temperature vertically. Also provided for each dry-bulb temperature interval is the total number of observations with dry-bulb and wet-bulb temperature combined; and again for dry-bulb, wet-bulb, and dew-point temperatures separately. Total observations for these four items is also provided in two lines at end of each tabulation table.

NOTE: A percentage frequency in this table of ".0" represents one or more occurrences amounting to less than .05 percent.

(2) Statistical data for the individual elements of relative humidity, dry-bulb, wet-bulb, and dew-point temperatures are shown in the section at the bottom left of each page. These consist of the sum of squares  $\sum X^2$ , sums of values  $\sum X$ , means  $(\bar{X})$ , and standard deviations  $(\sigma_X)$ . The number of observations used in the computations for each element is also shown.

(3) At the lower right of each page Table 40 gives the mean number of hours of occurrence for six ranges of dry-bulb, wet-bulb, and dew-point temperatures, and total number of hours possible in the period represented. Mean number of hours is shown to tenths and indicates mean number of hours per year in the annual summary, or mean number of hours per month in the tabulations by month.

NOTE: Wet-bulb temperature usually was not reported prior to 1946. Relative humidity usually was not reported prior to 1949, nor subsequent to June 1958; and was computed by machine methods for observations recorded during these periods. All values of dew-point temperature and relative humidity are with respect to water, unless otherwise indicated.

d. Means and standard deviations. These tabulations are derived from hourly observations and present the mean, standard deviation, and total number of observations for the eight standard 3-hour groups, by month and annual and again at the bottom for all hours combined. Records for all years available are combined. Tables are prepared for the following:

Table 15 Dry-bulb temperature

Table 16 Wet-bulb temperature

Table 17 Dew-point temperature

e. Cumulative percentage frequency of occurrence of relative humidity Table 12. This summary is derived from hourly observations and presents the cumulative percentage frequency of occurrence of relative humidity by increments of 10% classes, plus the mean relative humidity and total number of observations in two tables.

By Month and Annual - by standard 3-hour groups, and all hours combined with the hour groups being the vertical argument. All years are combined for this summary.

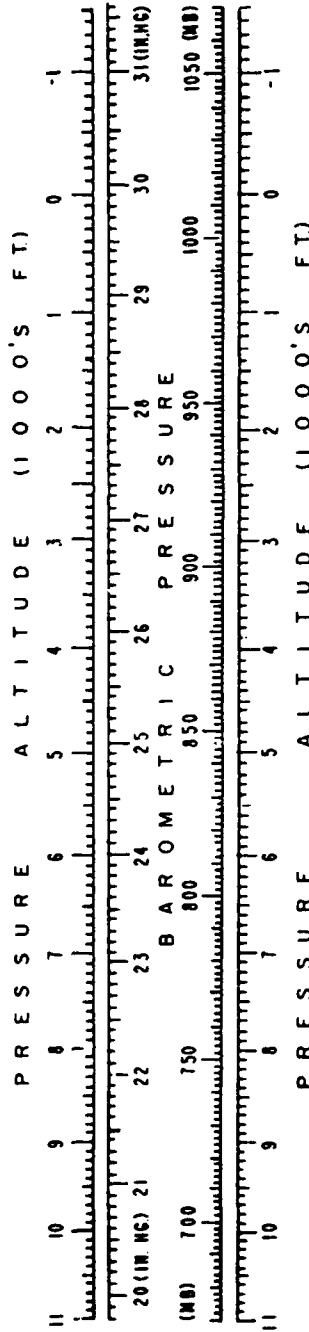
f. Percentage frequency of occurrence of dry-bulb temperature versus wind direction Table 4. This tabulation is derived from hourly observations and is presented by month and annual, all hours and years combined. The main body of the summary consists of dry bulb temperatures spread vertically in five degree increments and horizontally by eight wind directions (plus calm).

9. Pressure Summary. Two tables giving the means, standard deviations, and total number of observations of station pressure and sea-level pressure by month and annual for the local hourly observations corresponding to the eight 3-hourly synoptic times UTC. The same computations are also provided at the bottom of the page for all hours combined. All years of data available are combined in both of these tables.

Table 18 Station pressure in inches of mercury

Table 19 Sea-level pressure in millibars

Provided below is a scale to convert station pressure values in inches of mercury or millibars to pressure latitude in 1000's of feet. This scale is an enlarged model of the pressure latitude scale in the Smithsonian Meteorological Tables.



*M. L. Dickenson*  
M. L. DICKENSON

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	5
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DESCRIPTION	DATE	TIME	LOCATION	REMARKS
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2. 1000	10/10/1964	1000	1000	1000
3. 1000	10/10/1964	1000	1000	1000
4. 1000	10/10/1964	1000	1000	1000
5. 1000	10/10/1964	1000	1000	1000
6. 1000	10/10/1964	1000	1000	1000
7. 1000	10/10/1964	1000	1000	1000
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9. 1000	10/10/1964	1000	1000	1000
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14. 1000	10/10/1964	1000	1000	1000
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16. 1000	10/10/1964	1000	1000	1000
17. 1000	10/10/1964	1000	1000	1000
18. 1000	10/10/1964	1000	1000	1000
19. 1000	10/10/1964	1000	1000	1000
20. 1000	10/10/1964	1000	1000	1000
21. 1000	10/10/1964	1000	1000	1000
22. 1000	10/10/1964	1000	1000	1000
23. 1000	10/10/1964	1000	1000	1000
24. 1000	10/10/1964	1000	1000	1000
25. 1000	10/10/1964	1000	1000	1000
26. 1000	10/10/1964	1000	1000	1000
27. 1000	10/10/1964	1000	1000	1000
28. 1000	10/10/1964	1000	1000	1000
29. 1000	10/10/1964	1000	1000	1000
30. 1000	10/10/1964	1000	1000	1000
31. 1000	10/10/1964	1000	1000	1000
32. 1000	10/10/1964	1000	1000	1000
33. 1000	10/10/1964	1000	1000	1000
34. 1000	10/10/1964	1000	1000	1000
35. 1000	10/10/1964	1000	1000	1000
36. 1000	10/10/1964	1000	1000	1000
37. 1000	10/10/1964	1000	1000	1000
38. 1000	10/10/1964	1000	1000	1000
39. 1000	10/10/1964	1000	1000	1000
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41. 1000	10/10/1964	1000	1000	1000
42. 1000	10/10/1964	1000	1000	1000
43. 1000	10/10/1964	1000	1000	1000
44. 1000	10/10/1964	1000	1000	1000
45. 1000	10/10/1964	1000	1000	1000
46. 1000	10/10/1964	1000	1000	1000
47. 1000	10/10/1964	1000	1000	1000
48. 1000	10/10/1964	1000	1000	1000
49. 1000	10/10/1964	1000	1000	1000
50. 1000	10/10/1964	1000	1000	1000
51. 1000	10/10/1964	1000	1000	1000
52. 1000	10/10/1964	1000	1000	1000
53. 1000	10/10/1964	1000	1000	1000
54. 1000	10/10/1964	1000	1000	1000
55. 1000	10/10/1964	1000	1000	1000
56. 1000	10/10/1964	1000	1000	1000
57. 1000	10/10/1964	1000	1000	1000
58. 1000	10/10/1964	1000	1000	1000
59. 1000	10/10/1964	1000	1000	1000
60. 1000	10/10/1964	1000	1000	1000
61. 1000	10/10/			

HOURLY DATA TABULATIONS :

- 1 SURFACE WINDS -- WIND DIR VS WIND SPEED VS HOUR
- 2 CEILING VERSUS VISIBILITY -- BY HOUR
- 3 PSYCHROMETRIC SUMMARY -- DEPRESSIONS, DRY BULB, WET BULB, DEW POINT
- 4 MEANS AND STANDARD DEVIATIONS OF RELATIVE HUMIDITY
- 5 MEAN NO. OF DAYS WITH TEMPERATURE >= OR <= THRESHOLD VALUES
- 6 NOTE : 28 AND 40 ARE SUB TABLES OF TABLE 3
- 7 PERCENT FREQUENCY OF AIR TEMPERATURE VS WIND DIRECTION -- 3Y HOUR
- 8 SKYCOVER -- HOUR VS SKYCOVER AMTS VS MONTH
- 9 REL HUM -- HOUR VS REL HUM AMTS VS MONTH
- 10 WEATHER CONDITIONS -- HOUR VS WX CONDS VS MONTH
- 11 PERCENT FREQUENCY OF WIND DIRECTION VS WEATHER CONDITIONS -- BY MONTH
- 12 MEANS AND STANDARD DEVIATIONS (DRY BULB TEMPERATURE) -- BY MONTH
- 13 MEANS AND STANDARD DEVIATIONS (WET BULB TEMPERATURE) -- BY MONTH
- 14 MEANS/AND STANDARDS (DEW POINT TEMPERATURE) -- BY MONTH
- 15 MEANS AND STANDARD DEVIATIONS (SEA LEVEL PRESSURE) -- BY MONTH
- 16 MEANS AND STANDARD DEVIATIONS (STATION PRESSURE) -- BY MONTH
- 17 FLYING WEATHER - PERCENT OF HOURS WITH : CEILING & VISIBILITY CLASSES

## DAILY DATA TABULATIONS :

5	DAILY MAXIMUM TEMPERATURES	-- DEGREE VS MONTH	
6	DAILY MINIMUM TEMPERATURES	-- DEGREE VS MONTH	
7	DAILY MEAN TEMPERATURES	-- DEGREE VS MONTH	
8	DAILY AMOUNTS (PRECIPITATION)	-- MONTH VS AMTS	
9	DAILY AMOUNTS (SNOW FALL)	-- MONTH VS AMTS	
10	DAILY AMOUNTS (SNOW DEPTH)	-- MONTH VS AMTS	
21	DAILY EXTREME AMOUNTS	: PRECIPITATION	
22	DAILY EXTREME AMOUNTS	: SNOW FALL AND SNOW DEPTH	
23	EXTREME VALUES	: PRECIPITATION (24 HOUR TOTALS)	-- YEAR VS MONTH
24	EXTREME VALUE	: SNOW FALL	-- YEAR VS MONTH
25	EXTREME VALUE	: SNOW DEPTH	-- YEAR VS MONTH
26	OMITTED		
27	EXTREME VALUES	: DAILY PEAK GUSTS	-- YEAR VS MONTH
28	MEANS AND STANDARD DEVIATIONS OF RELATIVE HUMIDITY		
29	DAILY AVERAGES/EXTREME TEMPERATURES	-- BY MONTH	
30	EXTREME VALUES	: MAXIMUM TEMPERATURE	-- YEAR VS MONTH
31	EXTREME VALUES	: MINIMUM TEMPERATURE	-- YEAR VS MONTH
32	YEAR/MONTH VALUES	: HEATING DEGREE DAYS	-- YEAR VS MONTH
33	YEAR/MONTH VALUES	: COOLING DEGREE DAYS	-- YEAR VS MONTH
34	YEAR/MONTH VALUES	: MEAN TEMPERATURES	: YEAR
35	YEAR/MONTH VALUES	-- TOTAL PRECIPITATION	
36	WEATHER CONDITIONS	-- MONTH VS WEATHER CONDITION	CLASS FROM DAILY OBS
37	STATION CLIMATIC SUMMARY		
38	OMITTED		
39	OMITTED		

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 HOUR : 0100 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	SPEED (KNOTS)																TOTAL %	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56							
N	3.7	5.1	3.1	.9	.0	.0	.0	.0	.0	.0	.0	12.9	5.5					
NNE	1.3	1.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	3.5	4.1					
NE	.6	1.0	.3	.2	.0	.0	.0	.0	.0	.0	.0	2.1	5.7					
ENE	.9	.7	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.7	3.5					
E	1.4	2.4	.9	.1	.0	.0	.0	.0	.0	.0	.0	4.8	4.8					
ESE	1.7	3.7	1.9	.6	.3	.1	.0	.0	.0	.0	.0	8.4	6.4					
SE	1.5	3.9	1.5	1.7	.8	.0	.1	.0	.0	.0	.0	9.6	8.1					
SSE	.6	1.3	.6	1.0	.4	.4	.0	.1	.0	.0	.0	4.4	10.6					
S	.8	1.1	1.6	1.4	.2	.2	.0	.0	.0	.0	.0	5.3	9.0					
SSW	.2	.7	.3	.1	.2	.1	.0	.0	.0	.0	.0	1.6	8.9					
SW	.4	.5	.3	.2	.2	.1	.0	.0	.0	.0	.0	1.7	8.5					
WSW	.2	.7	.4	.2	.0	.0	.0	.0	.0	.0	.0	1.5	6.2					
W	.3	.8	.5	.7	.0	.0	.1	.0	.0	.0	.0	2.4	8.6					
WNW	.7	1.1	.6	.5	.3	.0	.0	.0	.0	.0	.0	3.2	7.4					
NW	1.8	2.1	1.3	.8	.2	.1	.0	.0	.0	.0	.0	6.4	6.6					
NNW	1.8	5.9	3.7	1.5	.0	.0	.0	.0	.0	.0	.0	12.9	6.4					
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0					
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0					
ALL	18.1	33.1	17.5	10.1	2.6	1.0	.2	.1	.0	.0	.0	100.0	5.6					

TOTAL NO. OF OBS : 591

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47' LONG. : 122 19'W ELEV. : 15 FT  
 MONTH : JAN  
 HOUR : 0000 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)																TOTAL	MEAN
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	2	1	1	1	1		
N	3.7	6.5	3.0	1.2	.0	.0	.0	.0	.0	.0	.0	14.4	5.6					
NNE	1.0	1.3	.6	.0	.0	.0	.0	.0	.0	.0	.0	2.9	4.6					
NE	.7	1.3	.5	.0	.0	.0	.0	.0	.0	.0	.0	2.5	4.9					
ENE	.6	.6	.3	.1	.0	.0	.0	.0	.0	.0	.0	1.6	5.0					
E	2.7	2.3	.9	.0	.1	.0	.0	.0	.0	.0	.0	6.0	5.5					
ESE	2.2	3.6	2.0	.5	.1	.0	.0	.0	.0	.0	.0	8.7	5.7					
SE	1.2	3.3	2.5	1.7	.6	.3	.1	.0	.0	.0	.0	10.4	8.3					
SSE	1.1	1.7	1.5	.8	.6	.3	.1	.0	.0	.0	.0	6.1	8.9					
S	.5	1.6	.9	.8	.5	.2	.1	.0	.0	.0	.0	4.6	9.4					
SSW	.7	.5	.2	.4	.1	.1	.0	.0	.0	.0	.0	1.5	10.1					
SW	.4	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	1.3	4.8					
WSW	.3	.5	.3	.3	.1	.0	.0	.0	.0	.0	.0	1.5	8.1					
W	.4	.4	.6	.4	.2	.0	.0	.0	.0	.0	.0	2.0	8.1					
WNW	.6	.7	.6	.3	.1	.0	.0	.0	.0	.0	.0	2.3	6.7					
NW	.0	1.6	1.3	.5	.2	.0	.0	.0	.0	.0	.0	4.5	6.7					
NNW	1.4	5.3	3.2	.8	.2	.0	.0	.0	.0	.0	.0	11.0	6.4					
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0					
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18.4	.0					
ALL	18.6	32.2	18.9	7.9	2.8	.9	.3	.0	.0	.0	.0	100.0	5.4					

TOTAL NO. OF OBS : 592

NOTES : \* = PERCENT < .05



# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 HOUR : 0700 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT.		SPEED (KNOTS)												TOTAL %		MEAN
DIR.		1 - 3	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56				
N		5.8	6.4	3.0	.4	.1	.0	.0	.0	.0	.0	.0	13.7	5.3		
NNE		1.4	1.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	2.9	3.9		
NE		1.1	.4	.3	.0	.1	.0	.0	.0	.0	.0	.0	1.9	4.7		
ENE		.7	.6	.8	.0	.0	.0	.0	.0	.0	.0	.0	2.1	5.3		
E		2.4	1.8	.4	.2	.0	.0	.0	.0	.0	.0	.0	4.8	4.1		
ESE		2.2	3.1	2.4	.9	.1	.0	.0	.0	.0	.0	.0	8.8	6.0		
SE		1.9	3.7	3.0	2.3	1.1	.3	.0	.1	.0	.0	.0	12.5	8.9		
SSE		1.0	2.1	.9	.8	.6	.2	.1	.0	.0	.0	.0	5.7	8.7		
S		1.3	2.0	.7	.4	.2	.1	.0	.0	.0	.0	.0	4.7	6.7		
SSW		.6	.7	.3	.3	.6	.1	.0	.0	.0	.0	.0	2.6	9.3		
SW		.2	.6	.2	.4	.2	.0	.0	.0	.0	.0	.0	1.6	8.6		
WSW		.2	.5	.2	.4	.0	.1	.0	.0	.0	.0	.0	1.4	7.9		
W		.6	.4	.5	.4	.1	.1	.0	.0	.0	.0	.0	2.1	8.4		
WNW		.4	.9	.2	.7	.0	.0	.0	.0	.0	.0	.0	2.2	7.7		
NW		1.8	1.8	1.0	.9	.2	.0	.0	.0	.0	.0	.0	5.7	6.3		
NNW		1.5	3.4	2.5	.7	.0	.0	.0	.0	.0	.0	.0	8.2	6.1		
VAR		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CLM		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18.9	.0		
ALL		21.3	29.7	16.7	9.0	3.3	.9	.1	.1	.0	.0	.0	100.0	5.4		

TOTAL NO. OF OBS : 992

NOTES :  
 # = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 HOUR : 1000 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

SPEED (KNOTS)																TOTAL %	MEAN WIND SPEED	
16 PT. DIR.	1 - 3	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56							
N	1.9	3.3	3.3	1.3	.1	.0	.0	.0	.0	.0	.0	.0	10.0	6.8				
NNE	.3	.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3	5.2				
NE	.3	.8	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.4	5.3				
ENE	.4	.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.4	5.4				
E	.4	.9	.8	.2	.1	.0	.0	.0	.0	.0	.0	.0	2.4	7.3				
ESE	1.0	1.7	1.1	.4	.3	.0	.0	.0	.0	.0	.0	.0	4.5	7.0				
SE	1.6	4.3	4.4	2.4	.6	.4	.2	.0	.0	.0	.0	.0	14.0	8.9				
SSE	1.9	3.5	1.8	1.2	.9	.4	.0	.0	.0	.0	.0	.0	9.8	8.3				
S	3.5	3.8	.8	.2	.2	.2	.0	.0	.0	.0	.0	.0	8.8	5.1				
SSW	1.3	1.0	.1	.3	.2	.0	.0	.0	.0	.0	.0	.0	2.9	5.5				
SW	.7	.5	.1	.4	.4	.0	.0	.0	.0	.0	.0	.0	2.1	8.3				
WSW	1.1	.3	.2	.5	.2	.1	.0	.0	.0	.0	.0	.0	2.4	7.7				
W	1.2	.9	.7	.4	.1	.0	.0	.0	.0	.0	.0	.0	3.3	6.5				
WNW	1.0	1.4	.8	.6	.0	.0	.0	.0	.0	.0	.0	.0	3.8	6.4				
NW	1.5	3.1	1.6	.7	.3	.0	.0	.0	.0	.0	.0	.0	7.3	6.4				
NNW	1.5	4.4	4.0	1.3	.1	.0	.0	.0	.0	.0	.0	.0	11.4	7.0				
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0				
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.1	.0				
ALL	19.8	31.4	20.9	10.1	3.5	1.1	.2	.0	.0	.0	.0	.0	100.0	6.1				

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 HOUR : 1300 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	SPEED (KNOTS)										TOTAL %	MEAN WIND SPEED
	1-3	4-6	7-10	11-15	17-21	22-27	28-33	34-40	41-47	48-55		
N	.8	1.4	1.7	.9	.2	.1	.0	.0	.0	.0	5.1	8.2
NNE	.0	.2	.3	.3	.0	.0	.0	.0	.0	.0	.8	9.8
NE	.2	1.2	.6	.1	.0	.0	.0	.0	.0	.0	2.1	6.3
ENE	.0	.3	.6	.3	.0	.0	.0	.0	.0	.0	1.2	9.3
E	.4	.7	.1	.3	.0	.0	.0	.0	.0	.0	1.5	6.3
ESE	.3	.5	.2	.6	.1	.0	.0	.0	.0	.0	1.7	8.6
SE	.9	1.7	2.2	1.8	.4	.7	.1	.0	.0	.0	7.9	10.6
SSE	1.3	2.5	1.9	.8	.6	.3	.0	.0	.0	.0	7.5	8.2
S	2.4	4.8	1.5	1.0	.5	.4	.1	.0	.0	.0	10.8	7.1
SSW	2.1	2.4	.6	.1	.3	.1	.0	.0	.0	.0	5.6	5.4
SW	.5	1.5	.4	.5	.3	.0	.0	.0	.0	.0	3.2	7.3
WSW	1.3	2.2	.4	.2	.2	.1	.0	.0	.0	.0	4.4	6.0
W	1.9	4.7	1.9	.8	.4	.0	.0	.0	.0	.0	9.8	6.3
WNW	.9	2.8	1.5	.7	.1	.0	.0	.0	.0	.0	6.0	6.5
NW	.7	5.1	6.6	2.1	.1	.0	.0	.0	.0	.0	14.6	7.8
NNW	1.3	3.8	5.9	1.4	.2	.0	.0	.0	.0	.0	12.7	7.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.9	.0
ALL	15.1	36.1	26.5	12.0	3.4	1.7	.2	.0	.0	.0	100.0	7.1

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 HOUR : 1600 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.		1	1-3	4	6	7-10	11-16	17-21	SPEED (KNOTS)					28-33	34-40	41-47	48-55	>56	TOTAL %	MEAN WIND SPEED
DIR.																				
N		.5	2.4			1.3	.8	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.4	8.0
NNE		.2	.6			.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.4	8.4
NE		.2	.6			.6	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.8	7.7
ENE		.4	.4			.8	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.8	6.6
E		.4	.3			.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	7.2
ESE		.2	.8			.5	.5	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	2.1	8.4
SE		.2	.6			1.4	.7	.5	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.8	11.6
SSE		.8	1.0			1.2	1.2	.8	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	5.2	10.1
S		2.2	2.2			1.8	1.4	.4	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	8.5	8.2
SSW		1.6	1.3			.4	.5	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.1	6.6
SW		1.7	.8			.8	.8	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.5	7.5
WSW		.9	1.0			.7	.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.5	7.1
W		1.5	3.1			2.4	1.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.9	7.4
WNW		.6	3.5			3.9	1.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.7	7.6
NW		1.1	6.9			6.7	1.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	16.3	7.2
NNW		1.1	4.8			6.0	2.3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	14.4	7.6
VAR		.0	.0			.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM		.0	.0			.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.7	.0
ALL		13.7	30.4			29.6	14.4	3.6	1.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	100.0	7.3

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 HOUR : 1900 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

SPEED (KNOTS)																TOTAL Σ	MEAN WIND SPEED				
16 PT.	1	3	4	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56								
DIR.	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VAR	C	L	M	ALL
	3.5	3.8	1.5	.8	2.0	1.0	1.4	1.0	.8	.4	.5	1.2	2.7	2.1	6.6	7.4	.0	.0	.0	.0	17.5
	1.0	1.5	.8	.7	.4	1.0	1.4	1.0	1.2	.6	.4	.5	2.7	2.1	6.6	7.4	.0	.0	.0	.0	34.0
	.4	.3	.1	.1	.4	.4	.5	.6	1.7	.6	.3	.5	1.5	.8	4.8	4.2	.0	.0	.0	.0	20.3
	.1	.0	.0	.0	.0	.0	.7	.4	.5	.2	.2	.1	.0	.1	.1	.2	.0	.0	.0	.0	10.2
	.0	.0	.0	.0	.0	.0	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.4
	.0	.0	.0	.0	.0	.1	.3	.2	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.5
	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0																	

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 HOUR : 2200 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT.		SPEED (KNOTS)																TOTAL %		MEAN WIND SPEED	
DIR.		1 - 3	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56									
N	4.5	7.7	2.9	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15.8	5.0			
NNE	.6	1.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2	4.4			
NE	.3	.4	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	5.0			
ENE	.1	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	5.5			
E	1.6	2.3	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.8	4.5			
ESE	1.2	2.7	1.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.4	5.6			
SE	1.0	3.6	1.7	1.6	.8	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.0	8.4			
SSE	.5	1.0	1.3	1.1	.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.8	10.4			
S	.6	1.0	.6	.9	.5	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.9	10.3			
SSW	.4	.2	.4	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.8	8.7			
SW	.6	.4	.6	.2	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	8.1			
WSW	.3	.5	.4	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.4	6.9			
W	1.5	.5	1.1	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.0	6.8			
WNW	.6	1.2	.6	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.0	7.1			
NW	1.2	4.2	2.5	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.9	6.5			
NNW	3.1	6.3	4.7	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15.0	5.9			
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
CCLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15.8	.0			
ALL	18.2	34.0	19.7	8.3	3.0	.9	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	5.5			

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 HOUR : ALL

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT.		SPEED (KNOTS)											TOTAL		MEAN	
DIR.		1 - 3	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	%			
N	2.8	4.6	2.5	.8	.1	.0*	.0	.0	.0	.0	.0	.0	10.8	5.8		
NNE	.7	1.1	.3	.1	.0*	.0	.0	.0	.0	.0	.0	.0	2.3	5.0		
NE	.6	.8	.3	.1	.0*	.0	.0	.0	.0	.0	.0	.0	1.9	5.4		
ENE	.5	.5	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.6	5.5		
E	1.3	1.6	.6	.1	.0*	.0	.0	.0	.0	.0	.0	.0	3.7	5.0		
ESE	1.2	2.2	1.3	.5	.1	.0*	.0	.0	.0	.0	.0	.0	5.3	6.4		
SE	1.2	2.8	2.3	1.6	.7	.3	.1	.0*	.0	.0	.0	.0	9.0	9.0		
SSE	1.0	1.8	1.2	1.0	.6	.3	.1	.0*	.0	.0	.0	.0	6.0	9.2		
S	1.6	2.2	1.2	1.0	.4	.2	.1	.0*	.0	.0	.0	.0	6.6	7.8		
SSW	.8	.9	.3	.4	.2	.1	.0	.0	.0	.0	.0	.0	2.8	7.4		
SW	.6	.7	.4	.4	.2	.1	.0	.0	.0	.0	.0	.0	2.4	7.9		
WSW	.6	.9	.4	.4	.1	.1	.0	.0	.0	.0	.0	.0	2.4	7.0		
W	1.0	1.7	1.2	.8	.2	.0*	.0*	.0	.0	.0	.0	.0	4.8	7.1		
WNW	.7	1.7	1.2	.7	.1	.0*	.0	.0	.0	.0	.0	.0	4.4	7.2		
NW	1.3	3.9	3.2	1.0	.2	.0*	.0	.0	.0	.0	.0	.0	9.7	6.9		
NNW	1.8	5.2	4.3	1.2	.1	.0*	.0	.0	.0	.0	.0	.0	12.5	6.6		
VAR	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.6	.0		
ALL	17.8	32.6	21.2	10.2	3.1	1.1	.2	.0*	.0	.0	.0	.0	100.0	6.1		

TOTAL NO. OF OBS : 7935

NOTES :  
 \* = PERCENT < .05

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JAN  
HOUR : 0100 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	28.8	46.5	49.3	53.0	55.4	56.3	57.3	57.6	57.6	57.7	57.7	57.8	57.8	57.9	58.0
>=20000	29.3	48.2	51.3	55.1	57.6	58.5	59.5	59.8	59.8	59.9	59.9	60.0	60.0	60.1	60.3
>=18000	29.4	48.4	51.5	55.4	57.8	58.7	59.7	60.0	60.0	60.1	60.1	60.2	60.2	60.3	60.6
>=16000	29.5	48.6	51.8	55.8	58.2	59.1	60.1	60.4	60.4	60.6	60.6	60.7	60.7	60.8	61.0
>=14000	29.8	49.5	52.7	56.8	59.2	60.2	61.3	61.6	61.6	61.7	61.7	61.8	61.8	61.9	62.1
>=12000	30.9	51.2	54.3	58.4	61.0	62.0	63.0	63.3	63.3	63.4	63.4	63.5	63.5	63.6	63.8
>=10000	31.8	52.8	56.3	60.3	62.9	63.9	64.9	65.2	65.3	65.4	65.4	65.5	65.5	65.6	65.9
>=8000	32.2	53.5	57.0	61.1	63.6	64.6	65.6	66.0	66.1	66.2	66.2	66.3	66.3	66.4	66.6
>=6000	32.5	54.0	57.6	61.8	64.4	65.5	66.6	66.9	67.0	67.1	67.1	67.2	67.2	67.3	67.5
>=4000	32.7	54.5	58.2	62.5	65.2	66.4	67.4	67.7	67.8	67.9	67.9	68.0	68.0	68.1	68.3
>=2000	33.6	55.7	59.3	63.6	66.4	67.5	68.5	68.8	68.9	69.0	69.0	69.1	69.1	69.2	69.4
>=1000	34.5	57.2	61.0	65.3	68.3	69.4	70.4	70.7	70.8	70.9	70.9	71.0	71.0	71.2	71.4
>=500	34.8	57.9	61.8	66.2	69.3	70.4	71.5	71.8	71.9	72.0	72.0	72.1	72.1	72.2	72.4
>=250	35.2	58.8	62.7	67.2	70.4	71.6	72.6	72.9	73.0	73.1	73.1	73.2	73.2	73.3	73.5
>=125	36.1	60.3	64.2	68.7	72.0	73.1	74.1	74.4	74.5	74.6	74.6	74.7	74.7	74.8	75.0
>=62.5	37.7	62.5	66.7	71.3	74.5	75.6	76.8	77.1	77.2	77.4	77.4	77.5	77.5	77.6	77.8
>=31.25	38.8	63.8	68.1	72.6	76.1	77.4	78.5	78.8	78.9	79.1	79.1	79.2	79.2	79.3	79.5
>=15.625	40.0	66.2	70.5	75.3	79.0	80.3	81.4	81.8	81.9	82.1	82.1	82.2	82.2	82.3	82.5
>=7.8125	40.5	67.2	71.8	76.8	80.4	81.6	83.1	83.4	83.5	83.7	83.7	83.8	83.8	83.9	84.1
>=3.90625	40.9	69.8	74.6	79.9	83.6	85.1	86.5	86.9	87.0	87.2	87.2	87.3	87.3	87.4	87.6
>=1.953125	41.1	71.6	76.8	82.4	86.1	87.9	89.4	89.7	90.0	90.2	90.2	90.3	90.3	90.4	90.6
>=976.8	41.4	72.4	78.1	83.9	87.8	89.7	91.5	91.8	92.2	92.4	92.4	92.5	92.5	92.6	92.8
>=488.4	41.4	73.0	78.9	84.7	88.8	90.7	92.6	93.0	93.3	93.5	93.5	93.6	93.6	93.7	93.9
>=244.2	41.4	73.1	79.2	85.0	89.1	91.0	93.0	93.5	93.8	94.0	94.0	94.1	94.1	94.2	94.4
>=122.1	41.6	73.5	79.6	85.5	89.6	91.5	93.5	94.0	94.3	94.5	94.5	94.6	94.6	94.7	94.9
>=61.05	41.6	73.5	79.9	85.9	90.2	92.3	94.3	94.8	95.1	95.4	95.4	95.5	95.5	95.6	95.8
>=30.525	41.6	73.6	80.0	86.1	90.5	92.6	94.7	95.3	95.6	95.9	95.9	96.0	96.0	96.1	96.3
>=15.2625	41.6	73.6	80.0	86.1	90.7	93.0	95.1	95.7	96.1	96.4	96.4	96.5	96.6	96.7	97.0
>=7.63125	41.6	73.6	80.0	86.1	90.8	93.2	95.3	96.0	96.4	96.7	96.7	96.8	96.9	97.0	97.5
>=3.815625	41.6	73.6	80.0	86.1	90.8	93.2	95.3	96.0	96.4	96.7	96.7	96.8	96.9	97.0	97.6
>=1.9078125	41.6	73.6	80.0	86.1	90.8	93.2	95.4	96.1	96.5	96.8	96.8	97.1	97.2	97.6	98.5
>=0.95390625	41.6	73.6	80.0	86.1	90.8	93.2	95.4	96.1	96.5	96.8	96.8	97.1	97.2	97.6	100.0

TOTAL NO. OF OBS : 981



## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 HOUR : 0400 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=2	>=1	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	25.7	41.0	44.1	47.9	50.9	51.5	52.5	52.6	52.6	52.6	52.9	52.9	52.9	52.9	52.9	53.1	53.1	53.1	53.3
>=20000	26.1	42.0	45.6	49.5	52.7	53.4	54.4	54.5	54.5	54.5	54.8	54.8	54.8	54.8	54.8	55.0	55.0	55.0	55.3
>=18000	26.1	42.1	45.7	49.6	52.8	53.5	54.5	54.6	54.6	54.6	54.9	54.9	54.9	54.9	54.9	55.1	55.1	55.1	55.5
>=16000	26.3	42.5	46.3	50.2	53.4	54.1	55.1	55.2	55.2	55.2	55.6	55.6	55.6	55.6	55.6	55.8	55.8	55.8	56.1
>=14000	26.7	43.3	47.1	51.1	54.4	55.1	56.2	56.3	56.3	56.3	56.6	56.6	56.6	56.6	56.6	56.8	56.8	56.8	57.1
>=12000	27.5	44.9	49.0	53.0	56.4	57.1	58.1	58.2	58.2	58.2	58.5	58.5	58.5	58.5	58.5	58.7	58.7	58.7	59.1
>=10000	28.4	46.5	50.9	55.0	58.4	59.2	60.3	60.4	60.4	60.4	60.7	60.7	60.7	60.7	60.7	60.9	60.9	60.9	61.2
>= 9000	28.7	46.9	51.4	55.6	59.0	59.7	60.8	60.9	60.9	60.9	61.2	61.2	61.2	61.2	61.2	61.4	61.4	61.4	61.7
>= 8000	29.5	48.0	52.7	56.8	60.3	61.0	62.1	62.2	62.2	62.2	62.6	62.6	62.6	62.6	62.6	62.8	62.8	62.8	63.1
>= 7000	30.1	49.0	53.6	57.8	61.3	62.0	63.2	63.3	63.3	63.3	63.6	63.6	63.6	63.6	63.6	63.8	63.8	63.8	64.1
>= 6000	30.5	49.5	54.2	58.6	62.1	62.9	64.0	64.1	64.1	64.1	64.4	64.4	64.4	64.4	64.4	64.6	64.6	64.6	64.9
>= 5000	31.4	51.0	55.8	60.2	63.9	64.6	65.7	65.8	65.8	65.8	66.2	66.2	66.2	66.2	66.2	66.4	66.4	66.4	66.7
>= 4500	32.4	52.3	57.1	61.6	65.3	66.0	67.2	67.3	67.3	67.3	67.6	67.6	67.6	67.6	67.6	67.8	67.8	67.8	68.1
>= 4000	33.0	53.4	58.3	62.9	66.6	67.3	68.4	68.5	68.5	68.5	68.8	68.8	68.8	68.8	68.8	69.0	69.0	69.0	69.3
>= 3500	34.2	54.8	59.9	64.4	68.2	68.9	70.1	70.2	70.2	70.2	70.5	70.5	70.5	70.5	70.5	70.7	70.7	70.7	71.0
>= 3000	35.3	56.6	61.6	66.2	70.1	70.9	72.0	72.1	72.1	72.1	72.4	72.4	72.4	72.4	72.4	72.6	72.6	72.6	72.9
>= 2500	36.1	58.1	63.3	68.1	72.0	72.9	74.2	74.3	74.3	74.3	74.6	74.6	74.6	74.6	74.6	74.8	74.8	74.8	75.1
>= 2000	37.8	61.3	66.7	71.6	75.8	76.9	78.2	78.3	78.3	78.3	78.6	78.6	78.6	78.6	78.6	78.8	78.8	78.8	79.1
>= 1800	37.9	62.0	67.5	72.6	77.0	78.1	79.4	79.5	79.5	79.5	79.8	79.8	79.8	79.8	79.8	80.0	80.0	80.0	80.3
>= 1500	38.5	64.7	71.0	76.7	81.3	82.6	84.2	84.4	84.4	84.4	84.7	84.7	84.7	84.7	84.7	84.9	84.9	84.9	85.2
>= 1200	38.7	65.0	72.6	78.6	83.5	84.9	86.4	86.6	86.6	86.6	86.9	86.9	86.9	86.9	86.9	87.1	87.1	87.1	87.4
>= 1000	38.7	67.4	74.1	80.7	86.0	87.3	89.0	89.2	89.2	89.2	89.5	89.5	89.5	89.5	89.5	89.7	89.7	89.7	90.0
>= 900	38.7	67.8	74.5	81.2	86.5	87.9	89.6	89.8	89.8	89.8	90.1	90.1	90.1	90.1	90.1	90.3	90.3	90.3	90.6
>= 800	38.8	67.9	74.7	81.5	87.0	88.5	90.5	90.7	90.7	90.7	91.0	91.0	91.0	91.0	91.0	91.3	91.3	91.3	91.6
>= 700	39.0	68.3	75.2	82.2	87.9	89.3	91.5	91.7	91.7	91.7	92.0	92.0	92.0	92.0	92.0	92.2	92.2	92.2	92.5
>= 600	39.0	68.5	75.7	82.9	88.6	90.0	92.2	92.4	92.4	92.4	92.8	92.8	92.8	92.8	92.8	93.0	93.0	93.0	93.3
>= 500	39.0	68.5	75.7	83.2	89.2	90.7	92.9	93.1	93.1	93.1	93.6	93.6	93.6	93.6	93.6	93.9	93.9	93.9	94.3
>= 400	39.0	68.6	75.9	83.4	89.4	90.9	93.2	93.5	93.5	93.5	94.0	94.0	94.0	94.0	94.0	94.4	94.4	94.4	95.0
>= 300	39.0	68.6	75.9	83.4	89.4	90.9	93.2	93.5	93.5	93.5	94.1	94.1	94.1	94.1	94.1	94.7	94.7	94.7	95.4
>= 200	39.0	68.6	75.9	83.4	89.4	90.9	93.3	93.6	93.6	93.6	94.2	94.2	94.2	94.2	94.2	95.3	95.3	95.3	96.2
>= 100	39.0	68.6	75.9	83.4	89.4	91.0	93.4	93.7	93.7	93.7	94.4	94.4	94.4	94.4	94.4	95.7	95.7	95.7	97.3
>= 0	39.0	68.6	75.9	83.4	89.4	91.0	93.4	93.7	93.7	93.7	94.4	94.4	94.4	94.4	94.4	95.8	95.8	95.8	100.0

TOTAL NO. OF OBS : 972

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JAN  
HOUR : 0700 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=2	>=1	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	20.5	32.7	36.6	40.2	42.8	43.4	44.5	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.1	45.2	45.3	45.4	45.8
>=20000	20.7	33.5	37.7	41.6	44.3	45.1	46.3	46.8	46.8	46.8	46.8	46.8	46.8	46.8	46.9	47.1	47.2	47.3	47.7
>=18000	20.7	33.9	38.1	42.0	44.7	45.5	46.7	47.2	47.2	47.2	47.2	47.2	47.2	47.2	47.3	47.5	47.6	47.7	48.1
>=16000	20.9	34.3	38.5	42.4	45.1	46.0	47.1	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.7	47.9	48.0	48.1	48.5
>=14000	21.4	35.1	39.6	43.5	46.6	47.4	48.5	49.0	49.0	49.0	49.0	49.0	49.0	49.0	49.1	49.3	49.4	49.5	49.9
>=12000	22.0	36.7	41.7	45.5	48.7	49.5	50.8	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.4	51.6	51.7	51.8	52.2
>=10000	23.3	39.0	44.1	48.3	51.8	52.6	53.8	54.4	54.4	54.4	54.4	54.4	54.4	54.4	54.5	54.7	54.8	54.9	55.3
>= 9000	23.7	39.5	44.6	48.8	52.3	53.1	54.4	54.9	54.9	54.9	54.9	54.9	54.9	54.9	55.0	55.2	55.3	55.4	55.8
>= 8000	24.5	41.1	46.3	50.6	54.1	55.0	56.2	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.8	57.0	57.1	57.2	57.6
>= 7000	25.0	42.0	47.2	51.6	55.2	56.0	57.3	57.8	57.8	57.8	57.8	57.8	57.8	57.8	57.9	58.1	58.2	58.3	58.8
>= 6000	25.5	42.6	47.8	52.3	55.9	56.7	58.0	58.5	58.5	58.5	58.5	58.5	58.5	58.5	58.6	58.9	59.0	59.1	59.5
>= 5000	26.0	43.6	48.9	53.6	57.2	58.0	59.4	59.9	59.9	59.9	59.9	59.9	59.9	59.9	60.0	60.2	60.3	60.4	60.8
>= 4500	26.7	44.5	49.9	54.8	58.4	59.3	60.6	61.1	61.1	61.1	61.1	61.1	61.1	61.2	61.3	61.5	61.6	61.7	62.1
>= 4000	27.2	45.6	51.1	56.0	59.7	60.5	61.8	62.3	62.3	62.3	62.3	62.3	62.3	62.4	62.5	62.7	62.8	62.9	63.4
>= 3500	27.6	46.5	52.0	57.1	60.8	61.6	63.1	63.6	63.6	63.6	63.6	63.6	63.6	63.7	63.8	64.0	64.1	64.2	64.6
>= 3000	28.8	48.8	54.5	59.9	63.6	64.4	65.9	66.4	66.4	66.4	66.4	66.4	66.4	66.5	66.6	66.8	66.9	67.0	67.5
>= 2500	30.3	52.0	57.8	63.5	67.5	68.4	69.9	70.4	70.4	70.4	70.4	70.4	70.4	70.5	70.6	70.8	70.9	71.0	71.4
>= 2000	31.7	55.4	61.6	67.5	71.5	72.7	74.3	74.8	74.8	74.8	74.8	74.8	74.8	74.9	75.0	75.2	75.3	75.4	75.8
>= 1800	31.7	55.8	62.1	68.2	72.4	73.5	75.1	75.6	75.6	75.6	75.6	75.6	75.6	75.7	75.8	76.0	76.2	76.3	76.7
>= 1500	32.9	59.0	65.9	72.4	76.7	78.2	79.8	80.5	80.5	80.5	80.5	80.5	80.5	80.6	80.7	81.0	81.1	81.2	81.6
>= 1200	33.3	59.9	67.1	74.1	78.5	80.1	82.0	82.6	82.6	82.6	82.6	82.6	82.6	82.7	82.8	83.1	83.2	83.3	83.7
>= 1000	33.5	61.2	68.5	75.8	80.3	82.1	84.1	84.9	84.9	84.9	84.9	84.9	84.9	85.0	85.1	85.4	85.5	85.6	86.0
>= 900	33.8	61.8	69.2	76.8	81.5	83.3	85.4	86.2	86.2	86.2	86.2	86.2	86.2	86.4	86.5	86.8	86.9	87.0	87.4
>= 800	33.9	62.5	70.1	77.7	82.4	84.4	86.5	87.4	87.4	87.4	87.4	87.4	87.4	87.6	87.7	88.0	88.1	88.2	88.6
>= 700	33.9	62.6	70.2	77.8	82.6	84.7	87.0	88.0	88.0	88.0	88.0	88.0	88.0	88.2	88.3	88.6	88.7	88.8	89.3
>= 600	33.9	63.3	70.8	76.9	83.9	86.3	88.5	89.6	89.6	89.6	89.6	89.6	89.6	89.9	90.0	90.3	90.4	90.5	91.0
>= 500	33.9	63.4	70.9	79.2	84.3	86.7	89.0	90.3	90.3	90.3	90.3	90.3	90.3	90.7	90.8	91.1	91.2	91.3	91.9
>= 400	33.9	63.4	71.0	79.4	84.7	87.1	89.8	91.4	91.5	91.5	91.5	91.5	91.5	92.0	92.1	92.4	92.5	92.7	93.3
>= 300	33.9	63.4	71.0	79.4	84.9	87.3	90.1	92.0	92.1	92.1	92.1	92.1	92.1	93.0	93.1	93.6	93.7	93.9	94.5
>= 200	33.9	63.4	71.0	79.4	84.9	87.3	90.2	92.1	92.2	92.2	92.2	92.2	92.2	93.2	93.4	93.9	94.2	94.5	95.3
>= 100	33.9	63.4	71.0	79.4	84.9	87.3	90.2	92.1	92.2	92.2	92.2	92.2	92.2	93.3	93.6	94.2	94.5	95.0	96.6
>= 0	33.9	63.4	71.0	79.4	84.9	87.3	90.2	92.1	92.2	92.2	92.2	92.2	92.2	93.3	93.6	94.4	94.7	95.3	100.0

TOTAL NO. OF OBS : 977

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JAN  
HOUR : 1000 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=2	1/2	>=1	1/2	>=1	1/4	>=1	>=3/4	>=5/8
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=2	1/2	>=1	1/2	>=1	>=5/16	>=1/2	>=5/8	>=1/4
UNLIMIT	19.9	28.5	33.9	38.9	41.4	43.1	44.9	45.7	45.7	45.7	45.7	46.3	46.3	46.3	46.3	46.6
>=20000	20.4	30.1	35.8	41.3	44.4	46.4	48.4	49.2	49.2	49.2	49.2	49.8	49.8	49.8	49.8	50.3
>=18000	20.5	30.3	36.0	41.7	44.8	46.8	48.8	49.6	49.6	49.6	49.6	50.3	50.3	50.3	50.3	50.7
>=16000	20.7	30.7	36.5	42.3	45.5	47.7	49.6	50.5	50.5	50.5	50.5	51.1	51.1	51.1	51.1	51.5
>=14000	20.9	31.0	37.1	43.3	46.6	49.0	51.3	52.1	52.1	52.1	52.1	52.7	52.7	52.7	52.7	53.2
>=12000	21.9	32.8	39.1	45.7	49.1	51.5	53.9	54.8	54.8	54.8	54.8	55.4	55.4	55.4	55.4	55.8
>=10000	22.6	34.3	40.8	48.3	52.1	54.7	57.2	58.3	58.3	58.3	58.3	58.9	58.9	58.9	58.9	59.4
>= 9000	23.0	34.7	41.3	48.8	52.6	55.2	57.8	58.9	58.9	58.9	58.9	59.6	59.6	59.6	59.6	60.1
>= 8000	23.5	36.2	42.7	50.5	54.4	57.0	59.7	60.8	60.8	60.8	60.8	61.4	61.4	61.4	61.4	61.9
>= 7000	23.7	36.6	43.1	51.0	55.0	57.6	60.3	61.5	61.5	61.5	61.5	62.2	62.2	62.2	62.2	62.8
>= 6000	24.2	37.5	44.1	51.9	55.9	58.5	61.3	62.6	62.6	62.6	62.6	63.2	63.2	63.2	63.2	63.8
>= 5000	24.5	38.3	45.0	52.8	57.0	59.6	62.4	63.6	63.6	63.6	63.6	64.2	64.2	64.2	64.2	64.8
>= 4500	24.9	39.1	45.9	54.0	58.1	60.7	63.6	64.9	64.9	64.9	64.9	65.6	65.6	65.6	65.6	66.2
>= 4000	25.2	40.0	46.9	55.3	59.6	62.3	65.1	66.5	66.5	66.5	66.5	67.1	67.1	67.1	67.1	67.7
>= 3500	25.9	41.4	48.3	56.9	61.1	63.8	66.7	68.0	68.0	68.0	68.0	68.7	68.7	68.7	68.7	69.3
>= 3000	27.2	44.1	51.0	59.7	64.0	66.7	69.6	70.9	70.9	70.9	70.9	71.6	71.6	71.6	71.6	72.2
>= 2500	27.9	46.3	53.5	62.6	67.0	69.9	73.1	74.5	74.5	74.5	74.5	75.1	75.1	75.1	75.1	75.7
>= 2000	29.2	48.9	56.4	65.8	70.4	73.4	76.9	78.3	78.3	78.3	78.3	78.9	78.9	78.9	78.9	79.5
>= 1800	29.4	49.3	56.8	66.3	70.9	74.3	77.8	79.1	79.1	79.1	79.1	79.7	79.7	79.7	79.7	80.4
>= 1500	30.0	51.0	58.7	68.4	73.3	76.8	80.9	82.3	82.3	82.3	82.3	83.0	83.0	83.0	83.0	83.7
>= 1200	30.4	52.2	60.5	70.7	76.0	80.0	84.3	85.8	85.8	85.8	85.8	86.6	86.6	86.6	86.6	87.2
>= 1000	30.7	53.2	61.7	72.5	77.8	81.9	86.2	87.8	87.8	87.8	87.8	88.7	88.7	88.7	88.7	89.3
>= 900	30.7	53.2	61.7	72.5	77.8	81.9	86.5	88.1	88.1	88.1	88.1	89.0	89.0	89.0	89.0	89.7
>= 800	30.7	53.4	62.0	73.2	78.6	82.8	87.7	89.7	89.7	89.7	89.7	90.6	90.6	90.6	90.6	91.2
>= 700	30.7	53.4	62.0	73.3	79.0	83.2	88.2	90.2	90.2	90.2	90.2	91.2	91.2	91.2	91.2	91.8
>= 600	30.7	53.5	62.3	73.6	79.4	83.8	89.1	91.3	91.3	91.3	91.3	92.3	92.3	92.3	92.3	93.0
>= 500	30.7	53.5	62.3	73.6	79.5	84.0	89.6	92.1	92.1	92.1	92.1	93.5	93.5	93.5	93.5	94.5
>= 400	30.7	53.5	62.3	73.6	79.6	84.1	89.8	92.6	92.6	92.6	92.6	94.0	94.0	94.0	94.0	95.4
>= 300	30.7	53.5	62.3	73.6	79.6	84.1	89.8	92.8	92.8	92.8	92.8	94.3	94.3	94.3	94.3	96.2
>= 200	30.7	53.5	62.3	73.6	79.6	84.1	89.8	92.9	92.9	92.9	92.9	94.6	94.6	94.6	94.6	97.7
>= 100	30.7	53.5	62.3	73.6	79.6	84.1	89.8	92.9	92.9	92.9	92.9	94.6	94.6	94.6	94.6	98.4
>= 0	30.7	53.5	62.3	73.6	79.6	84.1	89.8	92.9	92.9	92.9	92.9	94.6	94.6	94.6	94.6	100.0

TOTAL NO. OF OBS : 967

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA

PERIOD OF RECORD : 1955-1986

CLASS : ALL WEATHER

CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

MONTH : JAN

HOUR : 1300 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0		
UNLIMIT	19.4	31.7	35.5	40.5	45.2	47.6	49.5	50.4	50.7	51.1	51.2	51.2	51.4	51.5	51.5	51.5
>=20000	19.9	33.4	37.7	43.3	48.5	51.3	53.4	54.2	54.6	55.0	55.1	55.3	55.3	55.4	55.4	55.4
>=18000	19.9	33.6	38.0	43.9	48.8	51.6	53.7	54.6	54.9	55.3	55.5	55.6	55.8	55.9	55.9	55.9
>=16000	20.3	34.1	38.6	44.6	49.7	52.6	54.8	55.6	55.9	56.3	56.6	56.7	56.9	57.0	57.0	57.0
>=14000	20.7	35.0	39.7	46.1	51.4	54.2	56.5	57.4	57.7	58.1	58.3	58.4	58.7	58.8	58.8	58.8
>=12000	21.6	36.8	41.7	48.3	54.0	56.9	59.2	60.2	60.5	61.0	61.2	61.3	61.5	61.6	61.6	61.6
>=10000	22.4	38.1	43.0	50.3	56.3	59.2	61.5	62.6	63.0	63.4	63.6	63.7	63.9	64.0	64.0	64.0
>=9000	22.6	38.4	43.3	50.6	56.8	59.6	61.9	63.1	63.4	63.8	64.0	64.1	64.3	64.4	64.4	64.4
>=8000	23.5	39.8	44.7	52.0	58.2	61.2	63.5	64.6	65.0	65.4	65.6	65.7	66.0	66.1	66.1	66.1
>=7000	23.6	40.4	45.4	52.9	59.1	62.1	64.4	65.6	65.9	66.3	66.5	66.6	66.9	67.1	67.1	67.1
>=6000	23.9	40.9	46.0	53.4	59.6	62.6	65.0	66.1	66.4	66.8	67.1	67.2	67.5	67.6	67.6	67.6
>=5000	24.1	41.4	46.5	54.0	60.3	63.4	65.7	66.8	67.2	67.6	67.8	67.9	68.2	68.3	68.3	68.3
>=4500	24.9	42.6	47.7	55.3	61.6	64.6	67.1	68.2	68.5	69.0	69.3	69.4	69.7	69.8	69.8	69.8
>=4000	25.8	44.6	50.1	57.8	64.4	67.5	70.0	71.1	71.5	72.0	72.2	72.3	72.6	72.7	72.7	72.7
>=3500	26.8	46.2	51.7	59.5	66.2	69.3	71.8	72.9	73.2	73.8	74.0	74.1	74.4	74.5	74.5	74.5
>=3000	27.9	48.7	54.5	62.4	69.2	72.3	75.0	76.2	76.5	77.0	77.2	77.3	77.6	77.8	77.8	77.8
>=2500	28.9	51.2	57.2	65.5	72.3	75.6	78.4	79.5	79.9	80.4	80.6	80.7	81.0	81.1	81.1	81.1
>=2000	30.4	53.7	59.9	68.3	75.2	78.5	81.6	82.8	83.1	83.6	83.8	83.9	84.3	84.4	84.4	84.4
>=1800	30.7	54.5	60.8	69.3	76.3	79.6	82.8	83.9	84.3	84.9	85.1	85.2	85.5	85.6	85.6	85.6
>=1500	31.3	56.3	63.1	72.1	79.4	83.0	86.5	87.7	88.0	88.7	88.9	89.0	89.3	89.4	89.4	89.4
>=1200	31.9	57.4	64.5	74.2	81.7	85.4	88.9	90.2	90.7	91.3	91.5	91.6	91.9	92.0	92.0	92.0
>=1000	31.5	58.4	65.6	75.4	83.2	87.3	91.0	92.7	93.1	93.7	93.9	94.0	94.3	94.4	94.4	94.4
>=900	31.5	58.4	65.6	75.6	83.7	87.6	91.7	93.4	93.8	94.5	94.8	94.9	95.2	95.3	95.3	95.3
>=800	31.5	59.0	66.1	76.3	84.8	88.7	93.0	94.6	95.1	95.8	96.0	96.1	96.4	96.5	96.5	96.5
>=700	31.5	59.0	66.1	76.3	85.0	88.9	93.2	95.0	95.4	96.1	96.3	96.4	96.7	96.9	96.9	96.9
>=600	31.5	59.0	66.1	76.4	85.1	89.1	93.6	95.4	95.8	96.6	97.0	97.1	97.4	97.5	97.5	97.5
>=500	31.5	59.0	66.1	76.5	85.2	89.2	93.8	95.7	96.1	97.1	97.4	97.5	97.8	97.9	97.9	97.9
>=400	31.5	59.1	66.3	76.8	85.7	89.7	94.3	96.3	96.9	98.0	98.4	98.5	99.0	99.1	99.1	99.1
>=300	31.5	59.1	66.3	76.8	85.7	89.7	94.3	96.3	96.9	98.2	98.6	98.8	99.4	99.5	99.5	99.5
>=200	31.5	59.1	66.3	76.8	85.7	89.7	94.3	96.3	96.9	98.2	98.6	98.8	99.4	99.6	99.6	99.6
>=100	31.5	59.1	66.3	76.8	85.7	89.7	94.3	96.3	96.9	98.2	98.6	98.8	99.4	99.6	99.6	99.6
>=0	31.5	59.1	66.3	76.8	85.7	89.7	94.3	96.3	96.9	98.2	98.6	98.8	99.4	99.7	99.7	100.0

TOTAL NO. OF OBS : 953

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JAN  
HOUR : 1600 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)																	
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	23.4	38.8	43.6	48.6	51.9	52.9	54.3	54.4	54.5	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.8
>=20000	23.9	40.9	46.3	51.9	55.6	56.7	58.3	58.4	58.5	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.8
>=18000	24.1	41.3	46.6	52.2	55.9	57.1	58.6	58.7	58.8	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.2
>=16000	24.3	41.6	47.1	52.7	56.5	57.7	59.3	59.4	59.5	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.8
>=14000	24.9	43.1	48.9	54.8	58.8	60.1	61.7	62.0	62.1	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.4
>=12000	25.7	44.8	50.9	56.9	60.9	62.3	63.9	64.3	64.4	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.7
>=10000	27.5	47.7	54.0	60.1	64.3	65.9	67.5	68.0	68.1	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.4
>= 9000	27.6	47.8	54.1	60.2	64.4	66.0	67.6	68.1	68.2	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.5
>= 8000	28.0	48.8	55.4	61.5	65.8	67.5	69.1	69.6	69.7	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9	70.0
>= 7000	28.5	49.7	56.2	62.3	66.8	68.6	70.2	70.7	70.9	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.3
>= 6000	28.7	50.2	56.7	62.8	67.4	69.2	70.7	71.4	71.6	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.9
>= 5000	29.3	51.3	57.9	64.0	68.6	70.5	72.2	72.8	73.1	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.4
>= 4500	29.4	52.0	58.6	64.8	69.5	71.4	73.2	73.8	74.0	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.3
>= 4000	29.9	52.8	59.6	66.0	70.7	72.6	74.5	75.2	75.4	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.8
>= 3500	30.2	54.7	61.5	68.1	72.9	74.8	76.7	77.4	77.6	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	78.0
>= 3000	31.8	56.9	63.8	70.5	75.5	77.4	79.5	80.2	80.4	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.8
>= 2500	32.9	58.7	65.6	72.5	77.5	79.5	81.8	82.5	82.7	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.2
>= 2000	34.2	62.0	69.2	76.4	81.6	83.8	86.2	86.9	87.2	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.8
>= 1800	34.3	62.3	69.7	77.1	82.4	84.7	87.2	87.9	88.1	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.7
>= 1500	34.7	63.8	71.5	79.2	84.8	87.5	89.9	90.7	90.9	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.7
>= 1200	34.7	64.3	72.1	80.1	86.3	89.2	91.8	92.6	92.9	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.7
>= 1000	34.8	65.3	73.2	81.8	88.0	90.9	93.7	94.5	94.9	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.8
>= 900	34.9	65.7	73.7	82.4	89.2	92.1	94.9	95.9	96.2	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	97.1
>= 800	34.9	66.0	74.0	82.9	89.8	92.8	95.7	96.6	96.9	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.9
>= 700	34.9	66.1	74.1	83.1	90.0	93.1	95.9	96.9	97.3	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	98.2
>= 600	34.9	66.1	74.1	83.1	90.0	93.2	96.1	97.3	97.7	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.7
>= 500	34.9	66.1	74.1	83.1	90.0	93.3	96.2	97.4	97.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	99.2
>= 400	34.9	66.1	74.1	83.1	90.0	93.3	96.3	97.6	98.0	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.4
>= 300	34.9	66.1	74.1	83.1	90.0	93.3	96.3	97.6	98.0	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.5
>= 200	34.9	66.1	74.1	83.2	90.1	93.4	96.4	97.7	98.1	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.6
>= 100	34.9	66.1	74.1	83.2	90.1	93.4	96.4	97.7	98.1	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.9
>= 0	34.9	66.1	74.1	83.2	90.1	93.4	96.4	97.7	98.1	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	100.0

TOTAL NO. OF OBS : 950

# 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 HOUR : 1900 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

### VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	30.8	51.4	54.9	56.8	57.7	57.8	57.9	58.2	58.2	58.3	58.3	58.3	58.3	58.3	58.3	58.3
>=20000	31.2	53.3	56.8	58.8	59.7	59.8	59.9	60.2	60.2	60.4	60.4	60.4	60.4	60.4	60.4	60.4
>=18000	31.2	53.5	57.0	59.0	59.9	60.0	60.1	60.5	60.5	60.6	60.6	60.6	60.6	60.6	60.6	60.6
>=16000	31.4	54.0	57.6	59.5	60.5	60.6	60.7	61.0	61.0	61.1	61.1	61.1	61.1	61.1	61.1	61.1
>=14000	32.4	55.8	59.5	61.5	62.4	62.5	62.7	63.0	63.0	63.1	63.1	63.1	63.1	63.1	63.1	63.1
>=12000	32.8	57.3	61.2	63.4	64.3	64.4	64.6	64.9	64.9	65.0	65.0	65.0	65.0	65.0	65.0	65.0
>=10000	33.6	59.5	63.5	65.9	67.2	67.3	67.5	67.8	67.8	67.9	67.9	67.9	67.9	67.9	67.9	67.9
>=9000	33.9	59.8	63.9	66.4	67.6	67.7	67.9	68.2	68.2	68.3	68.3	68.3	68.3	68.3	68.3	68.3
>=8000	34.9	61.8	65.9	68.4	69.8	69.9	70.1	70.4	70.4	70.5	70.5	70.5	70.5	70.5	70.5	70.5
>=7000	35.5	62.9	67.2	69.7	71.1	71.2	71.4	71.7	71.8	71.9	71.9	71.9	71.9	71.9	71.9	71.9
>=6000	35.7	63.5	67.7	70.2	71.6	71.7	71.9	72.3	72.4	72.5	72.5	72.5	72.5	72.5	72.5	72.5
>=5000	36.4	65.0	69.4	71.8	73.3	73.4	73.6	73.9	74.0	74.1	74.1	74.1	74.1	74.1	74.1	74.1
>=4500	36.7	65.8	70.3	72.9	74.3	74.4	74.7	75.1	75.2	75.3	75.3	75.3	75.3	75.3	75.3	75.3
>=4000	37.6	67.1	71.5	74.1	75.6	75.7	76.0	76.3	76.4	76.5	76.5	76.5	76.5	76.5	76.5	76.5
>=3500	38.0	68.2	72.7	75.4	76.8	76.9	77.2	77.5	77.6	77.7	77.7	77.7	77.7	77.7	77.7	77.7
>=3000	39.1	70.4	75.2	78.2	79.6	79.7	80.2	80.5	80.6	80.7	80.7	80.7	80.7	80.7	80.7	80.7
>=2500	40.3	72.6	77.4	80.4	81.9	82.1	82.6	82.9	83.0	83.1	83.1	83.1	83.1	83.1	83.1	83.1
>=2000	41.4	75.5	80.7	84.1	85.5	85.8	86.3	86.7	86.9	87.0	87.0	87.0	87.0	87.0	87.0	87.0
>=1800	42.1	76.8	82.2	85.6	87.1	87.4	87.9	88.3	88.4	88.5	88.5	88.5	88.5	88.5	88.5	88.5
>=1500	43.0	79.0	84.4	88.3	89.8	90.1	90.8	91.4	91.5	91.6	91.6	91.6	91.6	91.6	91.6	91.6
>=1200	43.2	80.5	86.1	90.2	91.7	92.0	93.1	93.7	93.8	93.9	93.9	93.9	93.9	93.9	93.9	93.9
>=1000	43.5	81.3	87.0	91.0	92.7	93.0	94.2	94.8	94.9	95.1	95.1	95.1	95.1	95.1	95.1	95.1
>=900	43.5	81.4	87.1	91.3	93.1	93.5	94.7	95.3	95.4	95.8	95.8	95.8	95.8	95.8	95.8	95.8
>=800	43.6	82.2	88.0	92.5	94.4	94.8	96.1	96.7	96.8	97.1	97.2	97.2	97.2	97.2	97.2	97.2
>=700	43.6	82.3	88.3	92.9	94.8	95.2	96.6	97.2	97.3	97.6	97.7	97.7	97.7	97.7	97.7	97.7
>=600	43.6	82.4	88.5	93.1	95.2	95.7	97.0	97.6	97.7	98.0	98.1	98.1	98.1	98.2	98.2	98.2
>=500	43.6	82.4	88.7	93.3	95.4	95.9	97.2	97.9	98.0	98.4	98.6	98.6	98.7	98.7	98.7	98.7
>=400	43.6	82.4	88.7	93.3	95.4	95.9	97.2	98.0	98.1	98.7	99.0	99.0	99.1	99.1	99.1	99.1
>=300	43.6	82.4	88.7	93.3	95.4	95.9	97.2	98.1	98.2	98.9	99.2	99.2	99.3	99.3	99.3	99.3
>=200	43.6	82.4	88.7	93.3	95.4	95.9	97.2	98.1	98.2	98.9	99.2	99.2	99.3	99.3	99.3	99.3
>=100	43.6	82.4	88.7	93.3	95.4	95.9	97.2	98.1	98.2	98.9	99.2	99.2	99.3	99.4	99.4	99.5
>=0	43.6	82.4	88.7	93.3	95.4	95.9	97.2	98.1	98.2	98.9	99.2	99.2	99.3	99.5	99.6	100.0

TOTAL NO. OF OBS : 966

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JAN  
HOUR : 2200 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	30.4	49.9	53.1	55.5	57.1	57.3	57.6	57.9	57.9	58.1	58.3	58.3	58.4	58.4	58.4	58.4
>=20000	31.4	51.0	55.2	57.8	59.5	59.7	60.0	60.3	60.3	60.4	60.6	60.6	60.7	60.7	60.7	60.7
>=18000	31.4	51.1	55.3	57.9	59.6	59.8	60.1	60.4	60.4	60.5	60.7	60.7	60.8	60.8	60.8	60.8
>=16000	31.4	51.4	55.6	58.4	60.0	60.2	60.5	60.8	60.8	60.9	61.1	61.1	61.2	61.2	61.2	61.2
>=14000	32.2	52.8	57.0	59.8	61.5	61.7	62.1	62.4	62.4	62.5	62.7	62.7	62.8	62.8	62.8	62.8
>=12000	33.2	54.8	59.3	62.1	63.8	64.0	64.3	64.6	64.6	64.7	64.9	64.9	65.0	65.0	65.0	65.0
>=10000	34.1	56.3	61.0	64.1	65.9	66.2	66.6	66.9	66.9	67.0	67.2	67.2	67.3	67.3	67.3	67.3
>=9000	34.4	56.7	61.5	64.7	66.6	66.8	67.2	67.5	67.5	67.6	67.8	67.8	67.9	67.9	67.9	67.9
>=8000	35.0	57.8	62.8	65.9	67.8	68.1	68.5	68.8	68.8	68.9	69.1	69.1	69.2	69.2	69.2	69.2
>=7000	35.2	59.1	64.2	67.4	69.3	69.6	70.1	70.4	70.4	70.5	70.7	70.7	70.8	70.8	70.8	70.8
>=6000	35.6	59.7	64.8	68.0	69.9	70.3	70.7	71.0	71.0	71.1	71.3	71.3	71.4	71.4	71.4	71.4
>=5000	36.7	61.8	67.2	70.4	72.3	72.6	73.0	73.3	73.3	73.4	73.6	73.6	73.7	73.7	73.7	73.7
>=4500	37.1	62.9	68.2	71.4	73.3	73.6	74.1	74.4	74.4	74.5	74.7	74.7	74.8	74.8	74.8	74.8
>=4000	37.9	64.4	69.7	72.9	75.0	75.3	75.7	76.0	76.0	76.1	76.3	76.3	76.4	76.4	76.4	76.4
>=3500	38.7	65.3	70.7	73.8	75.9	76.2	76.6	76.9	76.9	77.0	77.2	77.2	77.3	77.3	77.3	77.3
>=3000	39.9	67.3	72.8	76.0	78.2	78.5	79.0	79.3	79.3	79.4	79.6	79.6	79.7	79.7	79.7	79.7
>=2500	40.7	69.0	74.7	77.9	80.1	80.4	80.9	81.2	81.2	81.3	81.5	81.5	81.7	81.7	81.7	81.7
>=2000	42.3	72.6	78.5	81.7	84.0	84.3	84.9	85.2	85.2	85.3	85.5	85.5	85.7	85.7	85.7	85.7
>=1800	42.6	73.1	79.1	82.5	84.8	85.1	85.7	86.1	86.1	86.2	86.4	86.4	86.6	86.6	86.6	86.6
>=1500	43.1	75.2	81.5	85.0	87.5	87.9	88.6	88.9	88.9	89.0	89.2	89.2	89.4	89.4	89.4	89.4
>=1200	43.6	76.9	83.7	87.7	90.5	91.0	91.8	92.2	92.2	92.3	92.5	92.5	92.7	92.7	92.7	92.7
>=1000	44.1	78.3	85.2	89.4	92.3	92.8	93.7	94.3	94.3	94.5	94.7	94.7	95.0	95.0	95.0	95.0
>=900	44.2	78.7	85.6	89.8	92.7	93.2	94.2	94.7	94.7	94.9	95.1	95.1	95.4	95.4	95.4	95.4
>=800	44.4	79.2	86.2	90.5	93.3	93.8	94.9	95.4	95.4	95.7	95.9	95.9	96.2	96.2	96.2	96.2
>=700	44.4	79.5	86.5	90.9	94.2	94.7	95.7	96.2	96.2	96.5	96.7	96.7	97.0	97.0	97.0	97.0
>=600	44.4	79.5	86.5	90.9	94.2	94.3	95.8	96.3	96.3	96.6	96.8	96.8	97.1	97.1	97.1	97.1
>=500	44.4	79.5	86.5	91.0	94.4	95.1	96.1	96.8	96.8	97.1	97.3	97.3	97.6	97.6	97.6	97.6
>=400	44.4	79.5	86.6	91.1	94.6	95.4	96.5	97.2	97.3	97.6	97.9	97.9	98.3	98.3	98.3	98.3
>=300	44.4	79.5	86.6	91.1	94.6	95.4	96.5	97.2	97.3	97.7	98.1	98.1	98.4	98.4	98.4	98.4
>=200	44.4	79.5	86.6	91.1	94.6	95.4	96.5	97.2	97.4	97.9	98.3	98.3	98.9	98.9	98.9	98.9
>=100	44.4	79.5	86.6	91.1	94.6	95.4	96.5	97.2	97.4	97.9	98.4	98.4	99.0	99.0	99.0	99.0
>=0	44.4	79.5	86.6	91.1	94.6	95.4	96.5	97.2	97.4	97.9	98.4	98.4	99.0	99.0	99.0	99.0

TOTAL NO. OF OBS : 975

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 HOUR : ALL

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)														
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	24.9	40.0	43.9	47.7	50.3	51.3	52.3	52.7	52.8	53.0	53.1	53.2	53.2	53.2	53.3
>=20000	25.4	41.6	45.8	50.0	52.8	53.9	55.0	55.4	55.5	55.7	55.8	55.9	55.9	56.0	56.1
>=18000	25.4	41.8	46.0	50.2	53.0	54.1	55.3	55.7	55.8	56.0	56.1	56.2	56.2	56.2	56.4
>=16000	25.6	42.2	46.5	50.7	53.6	54.7	55.9	56.3	56.4	56.6	56.7	56.8	56.8	56.9	57.0
>=14000	26.1	43.2	47.7	52.1	55.1	56.3	57.5	58.0	58.0	58.2	58.3	58.4	58.5	58.5	58.7
>=12000	27.0	44.9	49.7	54.2	57.3	58.5	59.7	60.2	60.3	60.5	60.6	60.7	60.7	60.7	60.9
>=10000	28.0	46.8	51.7	56.6	59.9	61.1	62.4	62.9	63.0	63.2	63.3	63.4	63.4	63.5	63.6
>=9000	28.3	47.2	52.2	57.0	60.4	61.6	62.9	63.4	63.5	63.7	63.8	63.9	63.9	64.0	64.2
>=8000	28.9	48.5	53.5	58.4	61.9	63.1	64.4	65.0	65.0	65.3	65.4	65.5	65.5	65.6	65.7
>=7000	29.3	49.3	54.4	59.4	62.9	64.2	65.5	66.1	66.2	66.4	66.5	66.6	66.6	66.7	66.9
>=6000	29.7	50.0	55.1	60.1	63.6	64.9	66.3	66.8	66.9	67.1	67.2	67.3	67.4	67.4	67.6
>=5000	30.4	51.2	56.5	61.5	65.1	66.4	67.8	68.4	68.4	68.7	68.8	68.9	68.9	69.0	69.1
>=4500	30.9	52.2	57.5	62.6	66.2	67.6	69.0	69.6	69.6	69.9	70.0	70.1	70.1	70.2	70.4
>=4000	31.5	53.4	58.8	64.0	67.7	69.1	70.5	71.1	71.2	71.4	71.5	71.6	71.7	71.7	71.9
>=3500	32.3	54.7	60.1	65.5	69.2	70.6	72.0	72.6	72.7	72.9	73.0	73.2	73.2	73.3	73.4
>=3000	33.5	56.9	62.5	68.0	71.8	73.2	74.7	75.3	75.4	75.7	75.8	75.9	75.9	76.0	76.2
>=2500	34.5	59.0	64.7	70.4	74.3	75.8	77.4	78.0	78.1	78.3	78.4	78.6	78.6	78.7	78.8
>=2000	35.9	62.0	67.9	73.8	77.9	79.4	81.2	81.8	81.9	82.2	82.3	82.4	82.5	82.5	82.7
>=1800	36.2	62.7	68.8	74.8	78.9	80.5	82.4	83.0	83.0	83.3	83.4	83.6	83.6	83.7	83.8
>=1500	36.8	64.9	71.4	77.8	82.0	83.9	85.9	86.6	86.7	87.0	87.1	87.2	87.3	87.3	87.5
>=1200	37.1	66.1	73.0	79.8	84.3	86.3	88.4	89.2	89.3	89.6	89.7	89.8	89.9	90.0	90.2
>=1000	37.3	67.2	74.2	81.3	86.7	88.1	90.4	91.2	91.3	91.7	91.8	92.0	92.1	92.1	92.3
>=900	37.4	67.5	74.6	81.8	86.7	88.8	91.2	92.0	92.1	92.6	92.7	92.9	92.9	93.0	93.1
>=800	37.4	67.9	75.1	82.5	87.4	89.6	92.1	93.1	93.2	93.6	93.7	93.8	94.0	94.0	94.2
>=700	37.5	68.1	75.3	82.8	87.9	90.1	92.7	93.6	93.7	94.2	94.3	94.4	94.5	94.6	94.8
>=600	37.5	68.2	75.5	83.1	88.3	90.6	93.3	94.3	94.5	94.9	95.1	95.3	95.3	95.4	95.6
>=500	37.5	68.3	75.6	83.3	88.6	90.9	93.7	94.8	95.0	95.6	95.8	96.0	96.0	96.1	96.3
>=400	37.5	68.3	75.6	83.4	88.8	91.2	94.0	95.3	95.5	96.1	96.4	96.7	96.7	96.9	97.1
>=300	37.5	68.3	75.6	83.4	88.8	91.2	94.1	95.4	95.6	96.4	96.7	97.0	97.1	97.3	97.5
>=200	37.5	68.3	75.6	83.4	88.8	91.2	94.1	95.5	95.7	96.5	97.0	97.4	97.5	97.7	98.0
>=100	37.5	68.3	75.6	83.4	88.8	91.2	94.1	95.5	95.7	96.6	97.0	97.6	97.7	98.0	98.7
>=0	37.5	68.3	75.6	83.4	88.8	91.2	94.1	95.5	95.7	96.6	97.0	97.6	97.8	98.1	100.0

TOTAL NO. OF OBS : 7741



# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 0100 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT.		1	3	4	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL	MEAN
DIR.															%	WIND SPEED
N	3.8	4.1	2.9	1.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.4	6.2
NNE	1.3	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	3.5
NE	.7	.3	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.5	6.1
ENE	.6	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	4.4
E	2.0	2.1	.4	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.0	4.6
ESE	1.5	3.1	1.7	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.9	6.1
SE	2.0	2.2	2.0	1.9	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	9.0	8.5
SSE	.9	2.2	.8	.7	.3	.3	.2	.0	.0	.0	.0	.0	.0	.0	5.4	9.1
S	.4	1.9	1.8	1.4	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	5.8	8.3
SSW	.2	1.1	.7	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.9	9.1
SW	.8	1.3	.4	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.1	6.8
WSW	.3	1.0	.3	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.4	7.9
W	.8	1.4	1.7	1.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.3	8.4
WNW	.6	1.1	1.4	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.8	7.4
NW	2.1	2.3	1.4	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.9	6.1
NNW	1.2	2.8	2.2	1.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	7.7	7.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19.0	.0
ALL	19.1	27.9	18.4	11.8	2.7	.9	.2	.0	.0	.0	.0	.0	.0	.0	100.0	5.7

TOTAL NO. OF OBS : 904

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 0400 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)															TOTAL	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	2	1	2	1		
N	3.1	4.5	2.7	1.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	12.2	6.4		
NNE	.9	1.4	.4	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	3.1	5.6		
NE	.9	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3	2.9		
ENE	.3	.1	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	5.8		
E	2.3	2.1	.8	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.3	4.3		
ESE	2.1	4.2	2.0	.3	.0	.2	.0	.0	.0	.0	.0	.0	.0	8.8	6.0		
SE	1.4	4.0	1.5	2.2	1.0	.3	.2	.0	.0	.0	.0	.0	.0	10.7	9.3		
SSE	.8	1.0	1.2	1.7	.4	.0	.0	.0	.0	.0	.0	.0	.0	5.1	9.5		
S	.7	1.2	.6	1.2	.1	.3	.0	.0	.0	.0	.0	.0	.0	4.1	8.9		
SSW	.9	1.0	.8	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.4	7.3		
SW	.8	.7	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.3	6.0		
WSW	.1	.4	1.2	1.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	2.9	9.7		
W	.4	1.1	1.2	.9	.1	.1	.0	.0	.0	.0	.0	.0	.0	3.9	8.6		
WNW	.7	1.2	1.1	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	3.3	6.8		
NW	1.3	1.9	1.4	.6	.1	.1	.0	.0	.0	.0	.0	.0	.0	5.4	6.8		
NNW	1.5	3.2	1.9	1.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	8.2	7.1		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18.8	.0		
ALL	18.3	28.4	18.1	12.4	2.5	1.2	.2	.0	.0	.0	.0	.0	.0	100.0	5.8		

TOTAL NO. OF OBS : 904

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 0700 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										TOTAL	MEAN
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	WIND SPEED
N	3.3	5.9	2.5	1.9	.3	.0	.0	.0	.0	.0	13.9	6.1
NNE	1.8	1.7	.7	.0	.1	.0	.0	.0	.0	.0	4.2	4.6
NE	1.0	.6	.2	.2	.0	.0	.0	.0	.0	.0	2.0	4.9
ENE	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.7	3.8
E	1.4	2.5	1.1	.1	.1	.0	.0	.0	.0	.0	5.3	5.5
ESE	1.7	4.1	2.4	.8	.1	.1	.0	.0	.0	.0	9.2	6.4
SE	1.9	3.1	1.7	2.2	.7	.6	.0	.0	.0	.0	10.1	8.9
SSE	1.3	2.0	1.0	1.4	.0	.3	.0	.0	.0	.0	6.1	8.4
S	1.5	1.5	.9	.8	.2	.1	.0	.0	.0	.0	5.1	7.0
SSW	.7	.6	.6	1.0	.1	.1	.0	.0	.0	.0	2.5	9.7
SW	.7	.7	.3	.2	.0	.1	.0	.0	.0	.0	2.0	6.6
WSW	.4	.6	.3	.2	.2	.0	.0	.0	.0	.0	1.8	7.1
W	.2	1.7	.9	.6	.2	.0	.0	.0	.0	.0	3.5	8.1
WNW	.6	.7	.8	.6	.2	.0	.0	.0	.0	.0	2.8	8.0
NW	1.1	1.5	1.1	.8	.0	.0	.0	.0	.0	.0	4.5	6.6
NNW	1.0	2.9	2.2	1.0	.0	.1	.0	.0	.0	.0	7.2	7.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19.1	.0
ALL	18.5	30.2	16.7	11.7	2.3	1.4	.0	.0	.0	.0	100.0	5.6

TOTAL NO. OF OBS : 904

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 1000 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.		1	3	4	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL %	MEAN WIND SPEED
SPEED (KNOTS)																
N	1.4	2.3	2.2	2.0	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	8.5	8.5
NNE	.7	.8	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.9	5.4
NE	.1	.4	.4	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.2	8.2
ENE	.1	.3	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	7.3
E	.4	1.1	.8	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.4	6.2
ESE	.8	.7	1.1	.8	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	3.7	8.9
SE	1.2	4.1	3.0	2.4	.9	.2	.1	.0	.0	.0	.0	.0	.0	.0	11.9	8.9
SSE	1.4	3.0	3.2	1.5	.8	.6	.0	.0	.0	.0	.0	.0	.0	.0	10.5	9.0
S	5.1	5.8	1.7	.6	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	13.6	5.3
SSW	1.4	1.4	.3	.8	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.1	6.1
SW	.9	.3	.3	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.9	6.1
WSW	.9	.7	.9	.6	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	3.2	7.7
W	1.2	1.5	1.3	.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.1	7.3
WNW	1.0	1.4	.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.4	6.1
NW	1.4	2.5	2.0	.8	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.0	6.8
NNW	1.8	4.0	2.8	1.8	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	10.7	7.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.0	.0
ALL	19.9	30.4	21.0	12.9	3.9	1.7	.2	.0	.0	.0	.0	.0	.0	.0	100.0	6.7

TOTAL NO. OF OBS : 904

NOTES : \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 1300 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT.		SPEED (KNOTS)																TOTAL		MEAN	
DIR.		1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	Σ								
N	.7	1.2	1.4	.4	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.2	8.0			
NNE	.1	.3	.4	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	9.3			
NE	.1	.2	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	8.3			
ENE	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	8.0			
E	.0	.2	.2	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3	7.8			
ESE	.0	.1	.9	.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	12.5			
SE	.7	1.2	1.4	1.3	.6	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.9	10.7			
SSE	.8	2.3	1.5	1.1	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.3	8.3			
S	1.5	4.8	1.5	2.0	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.6	7.8			
SSW	2.5	1.5	.9	.9	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.2	6.2			
SW	1.5	1.5	.9	.7	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.0	6.7			
WSW	1.7	3.3	2.1	.6	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.1	6.8			
W	2.0	5.2	2.9	2.2	.9	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.3	7.7			
WNW	.9	2.5	2.5	1.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.6	8.0			
NW	1.0	5.0	5.3	1.8	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.2	7.3			
NNW	.6	3.2	4.9	1.7	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.7	8.3			
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.9	.0			
ALL	14.0	33.5	27.1	14.6	5.0	1.8	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	7.6			

TOTAL NO. OF OBS : 904

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	SPEED (KNOTS)										TOTAL %	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55		
N	.2	1.3	.8	.7	.1	.1	.0	.0	.0	.0	3.2	8.4
NNE	.3	.4	.1	.1	.2	.0	.0	.0	.0	.0	1.2	7.7
NE	.0	.0	.3	.1	.0	.0	.0	.0	.0	.0	.4	10.8
ENE	.0	.3	.2	.0	.0	.0	.0	.0	.0	.0	.6	6.8
E	.2	.4	.7	.0	.0	.0	.0	.0	.0	.0	1.3	6.0
ESE	.1	.0	.2	.2	.0	.1	.0	.0	.0	.0	.7	12.3
SE	.0	.4	1.1	.7	.4	.1	.0	.1	.0	.0	2.9	12.7
SSE	.6	.8	1.0	1.0	.6	.6	.0	.1	.0	.0	4.5	12.3
S	1.2	2.4	.6	1.7	.6	.2	.0	.0	.0	.0	6.6	8.6
SSW	1.1	1.0	1.1	.6	.2	.1	.0	.0	.0	.0	4.1	7.7
SW	1.1	1.3	1.8	1.1	.1	.0	.0	.0	.0	.0	5.4	7.6
WSW	.8	1.7	2.5	1.4	.3	.0	.0	.0	.0	.0	6.8	8.2
W	2.1	5.2	9.7	6.1	1.4	.1	.0	.0	.0	.0	24.7	9.1
WNW	.3	2.8	7.6	2.1	.3	.1	.0	.0	.0	.0	13.3	8.9
NW	.6	5.0	7.0	1.7	.2	.0	.0	.0	.0	.0	14.4	7.8
NNW	.7	2.5	2.1	1.2	.2	.1	.0	.0	.0	.0	6.9	7.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.0	.0
ALL	9.3	25.7	36.9	18.6	4.8	1.6	.0	.2	.0	.0	100.0	8.5

TOTAL NO. OF OBS : 903

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 1900 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	SPEED (KNOTS)										TOTAL Σ	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55		
N	2.0	2.1	1.8	.4	.1	.0	.0	.0	.0	.0	6.4	5.7
NNE	.4	1.2	.2	.0	.0	.0	.0	.0	.0	.0	1.9	4.8
NE	.2	.6	.2	.0	.0	.0	.0	.0	.0	.0	1.0	4.8
ENE	.6	.7	.2	.0	.0	.0	.0	.0	.0	.0	1.4	4.6
E	.3	1.3	.7	.0	.1	.0	.0	.0	.0	.0	2.4	5.9
ESE	.4	.6	.4	.1	.1	.0	.0	.0	.0	.0	1.7	6.7
SE	.2	.2	.8	1.3	.2	.2	.1	.0	.0	.0	3.1	12.9
SSE	.6	.9	.4	1.3	.7	.3	.0	.0	.0	.0	4.2	11.2
S	.8	1.4	1.9	1.8	.2	.0	.0	.0	.0	.0	6.1	9.0
SSW	.2	.4	1.1	.8	.1	.0	.0	.0	.0	.0	2.7	9.5
SW	.7	1.2	.8	.3	.1	.1	.0	.0	.0	.0	3.2	7.3
WSW	.6	1.6	.9	.3	.1	.1	.1	.0	.0	.0	3.7	7.9
W	2.4	6.7	9.6	2.5	.4	.0	.0	.0	.0	.0	21.7	7.5
WNW	2.5	4.3	4.1	2.4	.3	.0	.0	.0	.0	.0	13.7	7.4
NW	2.0	4.5	3.1	1.0	.0	.0	.0	.0	.0	.0	10.6	6.1
NNW	1.7	3.9	2.7	.6	.2	.0	.0	.0	.0	.0	9.0	6.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.1	.0
ALL	15.6	31.6	28.9	13.0	2.8	.8	.2	.0	.0	.0	100.0	6.9

TOTAL NO. OF OBS : 902

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 2200 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL	MEAN WIND SPEED
N	3.4	4.7	2.0	1.0	.1	.0	.0	.0	.0	.0	.0	11.2	5.6
NNE	1.2	1.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	2.7	4.0
NE	.7	.3	.1	.1	.0	.0	.0	.0	.0	.0	.0	1.2	4.3
ENE	.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.7	4.2
E	1.6	1.1	.2	.1	.0	.0	.0	.0	.0	.0	.0	3.0	4.0
ESE	1.3	.7	.7	.4	.1	.0	.0	.0	.0	.0	.0	3.2	6.2
SE	1.0	1.6	1.3	1.0	.3	.6	.0	.0	.0	.0	.0	5.8	9.5
SSE	.7	1.9	.7	1.3	.4	.1	.0	.0	.0	.0	.0	5.1	8.9
S	.6	1.1	1.4	1.2	.7	.1	.0	.0	.0	.0	.0	5.1	9.9
SSW	.4	1.1	.7	.8	.2	.0	.0	.0	.0	.0	.0	3.2	8.1
SW	1.1	1.3	.8	.7	.2	.0	.0	.0	.0	.0	.0	4.1	6.8
WSW	.2	1.7	.8	.3	.1	.0	.0	.0	.0	.0	.0	3.1	6.7
W	1.6	3.4	2.9	1.3	.2	.1	.0	.0	.0	.0	.0	9.5	7.3
WNW	1.0	1.7	1.3	1.3	.1	.0	.0	.0	.0	.0	.0	5.4	7.7
NW	2.2	3.4	2.3	1.3	.3	.0	.0	.0	.0	.0	.0	9.6	6.9
NNW	3.1	4.7	2.1	1.4	.2	.0	.0	.0	.0	.0	.0	11.5	6.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15.5	.0
ALL	20.4	30.0	17.5	12.5	3.1	.9	.0	.0	.0	.0	.0	100.0	5.9

TOTAL NO. OF OBS : 902

NOTES :  
 \* = PERCENT < .05



# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : ALL

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT.	1	- 3	4	- 6	7-10	11-16	17-21	SPEED (KNOTS)							TOTAL	MEAN			
								22-27	28-33	34-40	41-47	48-55	>56	2			SPEED		
DIR.	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VAR	CLM	ALL
	2.2	.8	.5	.3	1.0	1.0	1.1	.9	1.5	.9	.6	1.3	.9	1.5	1.4	.0	.0	.0	16.9
	3.3	1.0	.3	.3	1.5	1.7	2.1	1.8	2.5	1.0	1.4	3.3	2.0	3.3	3.4	.0	.0	.0	29.7
	2.0	.3	.2	.2	.6	1.2	1.6	1.2	1.3	.8	.7	3.8	2.4	3.0	2.6	.0	.0	.0	23.1
	1.2	.1	.1	.0*	.1	.4	1.6	1.3	1.3	.5	.5	1.9	1.1	1.1	1.3	.0	.0	.0	13.4
	.2	.1	.0	.0	.1	.1	.6	.5	.3	.2	.2	.5	.2	.2	.2	.0	.0	.0	3.4
	.1	.0	.0*	.0	.0*	.1	.1	.3	.2	.0*	.0*	.1	.0*	.0	.0	.0	.0	.0	1.3
	.0	.0	.0	.0	.0	.0*	.0*	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0										

TOTAL NO. OF OBS : 7227

NOTES :  
 \* = PERCENT < .05

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 0100 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	34.8	53.8	54.9	56.3	57.2	57.5	57.7	57.7	57.7	57.7	57.7	57.8	57.8	57.8	57.8	57.8	57.8	57.8
>=20000	36.1	56.6	57.8	59.3	60.2	60.4	60.6	60.6	60.6	60.6	60.6	60.7	60.7	60.7	60.7	60.7	60.7	60.7
>=18000	36.3	56.9	58.1	59.7	60.6	60.8	61.1	61.1	61.1	61.1	61.1	61.2	61.2	61.2	61.2	61.2	61.2	61.2
>=16000	36.6	57.2	58.5	60.0	60.9	61.2	61.4	61.4	61.4	61.4	61.4	61.5	61.5	61.5	61.5	61.5	61.5	61.5
>=14000	37.3	58.5	59.7	61.4	62.3	62.5	62.7	62.7	62.7	62.7	62.7	62.9	62.9	62.9	62.9	62.9	62.9	62.9
>=12000	38.4	60.0	61.5	63.2	64.1	64.3	64.6	64.6	64.6	64.6	64.6	64.8	64.8	64.8	64.8	64.8	64.8	64.8
>=10000	38.9	61.2	62.7	64.5	65.4	65.7	66.0	66.0	66.0	66.0	66.0	66.1	66.1	66.1	66.1	66.1	66.1	66.1
>= 9000	38.9	61.3	62.9	64.6	65.5	65.8	66.1	66.1	66.1	66.1	66.1	66.2	66.2	66.2	66.2	66.2	66.2	66.2
>= 8000	40.1	63.2	64.9	66.9	67.8	68.0	68.4	68.4	68.4	68.4	68.4	68.5	68.5	68.5	68.5	68.5	68.5	68.5
>= 7000	41.2	64.4	66.1	68.1	69.0	69.2	69.6	69.6	69.6	69.6	69.6	69.7	69.7	69.7	69.7	69.7	69.7	69.7
>= 6000	41.8	65.2	66.9	68.9	69.8	70.0	70.4	70.4	70.4	70.4	70.4	70.5	70.5	70.5	70.5	70.5	70.5	70.5
>= 5000	42.9	67.3	69.0	71.0	71.9	72.2	72.5	72.5	72.5	72.5	72.5	72.6	72.6	72.6	72.6	72.6	72.6	72.6
>= 4500	43.2	68.4	70.0	72.1	73.0	73.2	73.5	73.5	73.5	73.5	73.5	73.6	73.6	73.6	73.6	73.6	73.6	73.6
>= 4000	43.9	69.8	71.6	73.6	74.5	74.7	75.1	75.1	75.1	75.1	75.1	75.2	75.2	75.2	75.2	75.2	75.2	75.2
>= 3500	44.7	70.9	72.7	74.9	75.8	76.0	76.3	76.3	76.3	76.3	76.3	76.4	76.4	76.4	76.4	76.4	76.4	76.4
>= 3000	46.0	73.5	75.4	77.7	78.6	78.8	79.1	79.1	79.1	79.1	79.1	79.2	79.2	79.2	79.2	79.2	79.2	79.2
>= 2500	47.6	76.0	78.0	80.6	81.5	81.7	82.0	82.0	82.0	82.0	82.0	82.2	82.2	82.2	82.2	82.2	82.2	82.2
>= 2000	49.7	79.0	81.3	84.1	85.1	85.3	85.6	85.6	85.6	85.6	85.6	85.7	85.7	85.7	85.7	85.7	85.7	85.7
>= 1800	50.2	80.0	82.3	85.2	86.2	86.4	86.8	86.8	86.8	86.8	86.8	86.9	86.9	86.9	86.9	86.9	86.9	86.9
>= 1500	51.5	82.9	85.3	88.4	89.5	89.7	90.0	90.0	90.0	90.0	90.0	90.1	90.1	90.1	90.1	90.1	90.1	90.1
>= 1200	52.3	84.4	87.2	90.5	91.5	91.7	92.0	92.1	92.1	92.1	92.1	92.3	92.4	92.4	92.4	92.4	92.4	92.4
>= 1000	52.4	85.2	88.2	91.5	92.5	92.7	93.0	93.2	93.2	93.2	93.2	93.3	93.4	93.4	93.4	93.4	93.4	93.4
>= 900	52.4	85.5	88.6	92.0	93.0	93.3	93.6	93.7	93.7	93.7	93.7	93.8	93.9	93.9	93.9	93.9	93.9	93.9
>= 800	52.5	86.0	89.0	92.6	93.6	93.8	94.2	94.3	94.3	94.3	94.3	94.4	94.5	94.5	94.5	94.5	94.5	94.5
>= 700	52.6	86.5	89.6	93.3	94.3	94.5	94.8	94.9	94.9	94.9	94.9	95.3	95.4	95.4	95.4	95.4	95.4	95.4
>= 600	52.7	87.3	90.5	94.3	95.5	95.7	96.2	96.3	96.3	96.3	96.3	96.6	96.7	96.7	96.7	96.7	96.7	96.7
>= 500	52.7	87.5	90.8	94.9	96.3	96.5	97.0	97.2	97.2	97.2	97.2	97.5	97.6	97.6	97.6	97.6	97.6	97.6
>= 400	52.7	87.7	90.9	95.1	96.6	97.0	97.4	97.6	97.6	97.6	97.6	98.0	98.2	98.2	98.2	98.2	98.2	98.2
>= 300	52.7	87.7	90.9	95.1	96.7	97.1	97.6	98.0	98.0	98.0	98.0	98.3	98.5	98.5	98.5	98.5	98.5	98.5
>= 200	52.7	87.7	90.9	95.1	96.9	97.3	97.9	98.2	98.2	98.2	98.2	98.5	98.8	98.8	98.8	98.8	98.8	98.8
>= 100	52.7	87.7	90.9	95.1	96.9	97.3	98.0	98.3	98.3	98.3	98.3	98.7	98.9	98.9	98.9	98.9	98.9	98.9
>= 0	52.7	87.7	90.9	95.1	96.9	97.3	98.0	98.3	98.3	98.3	98.3	98.7	98.9	98.9	99.1	99.1	99.3	100.0

TOTAL NO. OF OBS : 891

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : FEB  
HOUR : 0400 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/4	>=1
UNLIMIT	30.5	44.9	47.1	49.2	50.2	50.3	50.6	50.7	50.7	50.8
>=20000	31.6	47.5	49.9	52.0	53.0	53.1	53.4	53.5	53.5	53.7
>=18000	31.6	47.6	50.1	52.1	53.2	53.3	53.7	53.8	53.8	53.9
>=16000	31.6	47.6	50.1	52.1	53.2	53.3	53.7	53.8	53.8	53.9
>=14000	32.7	49.0	51.6	53.9	55.0	55.1	55.5	55.6	55.6	55.7
>=12000	33.3	49.9	52.8	55.0	56.1	56.2	56.6	56.7	56.7	56.8
>=10000	34.8	52.8	55.6	57.8	59.2	59.3	59.7	59.8	59.8	60.0
>= 9000	34.9	53.1	55.9	58.2	59.5	59.6	60.1	60.2	60.2	60.3
>= 8000	35.5	54.4	57.5	59.8	61.2	61.4	61.9	62.0	62.0	62.1
>= 7000	36.1	55.2	58.3	60.6	62.1	62.3	62.8	62.9	62.9	63.0
>= 6000	36.3	55.7	58.7	61.1	62.5	62.8	63.2	63.3	63.3	63.4
>= 5000	37.5	57.5	60.5	62.9	64.3	64.6	65.0	65.1	65.1	65.2
>= 4500	38.5	59.3	62.3	64.7	66.1	66.4	66.8	66.9	66.9	67.0
>= 4000	39.1	60.6	63.7	66.0	67.6	67.8	68.3	68.4	68.4	68.5
>= 3500	39.8	61.6	64.9	67.3	68.8	69.1	69.5	69.6	69.6	69.7
>= 3000	40.9	63.9	67.2	69.5	71.2	71.4	71.9	72.0	72.0	72.1
>= 2500	42.6	66.3	69.5	72.0	73.7	73.9	74.5	74.6	74.6	74.7
>= 2000	45.3	71.4	74.9	77.8	79.5	79.8	80.3	80.4	80.4	80.5
>= 1800	45.7	72.4	75.9	78.9	80.7	80.9	81.4	81.6	81.6	81.7
>= 1500	47.1	75.3	79.1	82.1	84.3	84.5	85.2	85.3	85.3	85.4
>= 1200	47.8	76.6	80.8	83.8	85.9	86.3	87.0	87.1	87.1	87.2
>= 1000	48.5	78.7	83.5	86.8	89.1	89.4	90.1	90.2	90.2	90.4
>= 900	48.6	79.1	83.8	87.3	89.7	90.0	90.7	90.9	90.9	91.1
>= 800	48.9	79.8	84.5	88.0	90.3	90.7	91.3	91.6	91.6	91.9
>= 700	49.0	80.1	84.8	88.3	90.7	91.0	91.7	92.0	92.0	92.4
>= 600	49.3	80.9	85.9	89.9	92.2	92.6	93.3	93.8	93.8	94.2
>= 500	49.3	81.2	86.6	90.6	93.0	93.5	94.5	95.1	95.1	95.5
>= 400	49.3	81.2	86.8	90.9	93.6	94.0	95.1	95.7	95.7	96.2
>= 300	49.3	81.3	87.0	91.1	93.8	94.3	95.4	96.2	96.2	96.7
>= 200	49.3	81.3	87.0	91.1	93.8	94.3	95.4	96.2	96.2	96.9
>= 100	49.3	81.3	87.0	91.1	93.8	94.3	95.4	96.2	96.2	96.9
>= 0	49.3	81.3	87.0	91.1	93.8	94.3	95.4	96.2	96.2	96.9

TOTAL NO. OF OBS : 889

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : FEB  
HOUR : 0700 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	22.8	34.8	37.3	39.6	41.7	42.5	43.6	44.2	44.2	44.2	44.4	44.4	44.5	44.5	44.5	44.5	44.7	45.0
>=20000	23.7	36.4	39.4	42.0	44.2	45.1	46.2	46.8	46.8	47.0	47.0	47.0	47.2	47.2	47.2	47.2	47.4	47.7
>=18000	23.8	36.6	39.6	42.2	44.4	45.3	46.5	47.0	47.0	47.4	47.4	47.6	47.5	47.5	47.5	47.5	47.6	47.9
>=16000	24.0	36.8	39.9	42.5	44.8	45.7	46.8	47.4	47.4	49.0	49.3	49.3	49.5	49.5	49.5	49.5	49.6	49.9
>=14000	24.6	37.9	41.3	44.0	46.3	47.2	48.5	49.0	49.0	51.4	51.6	51.6	51.9	51.9	51.9	51.9	52.0	52.3
>=12000	25.4	39.7	43.1	46.0	48.6	49.5	50.8	51.4	51.4	54.6	54.8	54.8	55.0	55.0	55.0	55.0	55.1	55.5
>=10000	26.3	41.8	46.0	48.9	51.5	52.4	53.9	54.6	54.6	57.5	57.7	57.7	57.9	57.9	57.9	57.9	58.0	58.4
>= 9000	26.3	42.0	46.1	49.0	51.6	52.5	54.0	54.7	54.7	57.5	57.7	57.7	57.9	57.9	57.9	57.9	58.0	58.4
>= 8000	27.4	44.3	48.6	51.6	54.4	55.3	56.8	57.5	57.5	58.6	58.8	58.8	59.1	59.1	59.1	59.1	59.2	59.5
>= 7000	27.6	44.9	49.4	52.5	55.3	56.4	57.9	58.6	58.6	59.7	59.9	59.9	59.2	59.2	59.2	59.2	59.3	59.6
>= 6000	27.7	45.0	49.5	52.6	55.5	56.5	58.0	58.7	58.7	59.7	59.9	59.9	60.2	60.2	60.2	60.2	60.3	60.6
>= 5000	28.2	45.9	50.4	53.7	56.5	57.5	59.1	59.7	59.7	61.6	61.9	61.9	62.1	62.1	62.1	62.1	62.2	62.5
>= 4500	28.9	47.2	52.1	55.5	58.4	59.4	61.0	61.6	61.6	63.0	63.2	63.2	63.4	63.4	63.4	63.4	63.6	63.9
>= 4000	29.6	48.4	53.2	56.6	59.5	60.6	62.3	63.0	63.0	64.7	64.9	64.9	65.1	65.1	65.1	65.1	65.2	65.6
>= 3500	30.3	49.9	54.8	58.3	61.2	62.3	64.0	64.7	64.7	67.9	68.2	68.2	68.4	68.4	68.4	68.4	68.5	68.8
>= 3000	31.7	52.5	57.8	61.3	64.5	65.6	67.3	67.9	67.9	72.4	72.7	72.7	72.9	72.9	72.9	72.9	73.0	73.3
>= 2500	33.3	55.9	61.9	65.4	68.8	70.1	71.8	72.4	72.4	76.3	76.5	76.5	76.7	76.7	76.7	76.7	76.8	77.2
>= 2000	34.3	58.3	64.6	68.4	72.4	73.7	75.6	76.3	76.3	78.0	78.2	78.2	78.4	78.4	78.4	78.4	78.5	78.9
>= 1800	34.6	59.5	65.9	70.1	74.1	75.4	77.3	78.0	78.0	81.8	82.0	82.0	82.2	82.2	82.3	82.3	82.5	82.8
>= 1500	35.0	61.9	68.6	73.1	77.4	78.9	80.8	81.8	81.8	84.1	84.4	84.4	84.6	84.6	84.7	84.7	84.8	85.2
>= 1200	35.0	63.1	70.2	75.1	79.6	81.1	83.0	84.1	84.1	87.3	87.7	87.7	88.0	88.0	88.1	88.1	88.2	88.5
>= 1000	35.3	64.8	72.2	77.7	82.6	84.3	86.2	87.3	87.3	89.7	89.9	89.9	89.5	89.5	89.5	89.5	89.6	89.9
>= 900	35.4	65.1	72.7	78.2	83.0	84.8	86.7	87.9	87.9	90.1	90.1	90.1	90.3	90.3	90.4	90.4	90.6	90.9
>= 800	35.4	65.5	73.1	78.6	83.7	85.5	87.5	88.8	88.8	91.2	91.2	91.2	91.5	91.5	91.6	91.6	91.7	92.0
>= 700	35.4	65.9	73.6	79.3	84.5	86.4	88.4	89.7	89.7	91.6	91.6	91.6	92.5	92.5	92.5	92.6	92.7	93.0
>= 600	35.7	66.5	74.2	80.0	85.4	87.4	89.4	90.7	90.7	92.4	92.4	92.4	93.4	93.4	93.4	93.5	93.6	93.9
>= 500	35.7	66.8	74.6	80.4	85.9	88.1	90.3	91.6	91.6	92.6	92.6	92.6	93.4	93.4	93.5	93.5	93.6	93.9
>= 400	35.7	66.8	74.7	80.7	86.3	88.5	91.0	92.4	92.4	92.6	92.6	92.6	94.0	94.0	94.3	94.3	94.4	94.9
>= 300	35.7	66.8	74.7	80.7	86.5	88.6	91.1	92.6	92.6	92.8	92.8	92.8	94.5	94.5	94.8	94.9	95.2	96.1
>= 200	35.7	66.8	74.7	80.7	86.5	88.8	91.3	92.8	92.8	93.0	93.0	93.0	94.7	94.7	95.2	95.3	95.7	97.6
>= 100	35.7	66.8	74.7	80.7	86.5	88.8	91.3	92.8	92.8	93.0	93.0	93.0	94.7	94.7	95.2	95.3	96.0	100.0
>= 0	35.7	66.8	74.7	80.7	86.5	88.8	91.3	92.8	92.8	93.0	93.0	93.0	94.7	94.7	95.2	95.3	96.0	100.0

TOTAL NO. OF OBS : 889

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : FEB  
HOUR : 1000 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/4	>=0
UNLIMIT	27.7	34.6	37.4	40.1	42.6	43.7	44.8	45.4	45.6	46.0
>=20000	25.1	37.2	40.5	43.5	46.1	47.5	48.6	49.3	49.4	49.9
>=18000	25.2	37.6	41.0	44.0	46.7	48.1	49.2	49.9	50.0	50.5
>=16000	25.2	37.6	41.0	44.1	46.8	48.2	49.4	50.1	50.2	50.7
>=14000	25.4	38.5	42.0	45.8	48.6	50.1	51.4	52.1	52.2	52.7
>=12000	26.0	40.1	43.7	47.5	50.7	52.2	53.8	54.4	54.6	55.1
>=10000	26.5	41.5	45.2	49.5	52.7	54.2	55.8	56.5	56.7	57.4
>= 9000	26.9	42.1	45.9	49.5	53.4	54.9	56.5	57.2	57.4	58.0
>= 8000	27.8	44.1	48.1	52.5	55.7	57.2	58.8	59.5	59.7	60.3
>= 7000	28.1	44.5	48.6	53.2	56.5	58.1	59.7	60.4	60.6	61.2
>= 6000	28.5	44.9	49.1	53.6	56.9	58.5	60.1	60.8	61.0	61.6
>= 5000	29.5	47.3	51.5	56.2	59.8	61.4	63.0	63.7	63.9	64.5
>= 4500	30.0	48.1	52.4	57.1	60.8	62.4	64.0	64.7	64.9	65.5
>= 4000	30.6	49.2	53.5	58.4	62.2	63.8	65.4	66.2	66.5	67.1
>= 3500	31.1	50.1	54.4	59.3	63.1	64.7	66.3	67.1	67.4	68.0
>= 3000	32.1	52.1	56.6	61.6	65.7	67.4	69.0	69.8	70.2	70.8
>= 2500	33.7	54.8	59.7	65.0	69.1	71.1	72.6	73.3	73.8	74.5
>= 2000	35.1	58.1	63.2	68.9	73.2	75.2	76.8	77.6	78.0	78.7
>= 1800	35.3	59.1	64.4	70.0	74.4	76.4	78.1	78.9	79.4	80.1
>= 1500	36.0	62.2	67.8	73.8	78.7	80.9	82.8	83.6	84.1	84.7
>= 1200	36.2	63.4	69.2	75.9	80.8	82.9	85.1	86.1	86.6	87.2
>= 1000	36.3	64.4	70.8	77.8	82.9	85.2	87.5	88.5	89.0	89.7
>= 900	36.3	64.7	71.3	78.4	83.5	85.8	88.4	89.4	89.9	90.7
>= 800	36.4	64.8	71.6	78.6	84.3	86.6	89.3	90.3	90.8	91.6
>= 700	36.4	64.9	71.8	78.9	84.7	87.0	89.7	91.0	91.5	92.4
>= 600	36.4	65.0	71.9	79.2	85.2	87.6	90.3	91.9	92.4	93.3
>= 500	36.4	65.0	72.0	79.3	85.4	87.8	90.8	92.4	92.9	94.1
>= 400	36.4	65.0	72.1	79.4	85.5	88.0	91.1	92.9	93.6	95.1
>= 300	36.4	65.0	72.1	79.5	85.6	88.2	91.2	93.2	94.0	95.6
>= 200	36.4	65.0	72.1	79.5	85.6	88.2	91.2	93.3	94.0	95.9
>= 100	36.4	65.0	72.1	79.5	85.6	88.2	91.2	93.3	94.0	96.0
>= 0	36.4	65.0	72.1	79.5	85.6	88.2	91.2	93.3	94.0	96.0

TOTAL NO. OF OBS : 878

# 2 - CEILING VS VISIBILITY

Q23239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 1300 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

### VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	26.3	38.6	42.1	44.3	48.6	50.1	50.8	51.1	51.1	51.5	51.5	51.5	51.6	51.6	51.6	51.6
>=20000	27.8	42.6	46.6	49.2	54.1	55.7	56.5	57.1	57.1	57.4	57.4	57.4	57.6	57.6	57.6	57.6
>=18000	28.1	43.5	47.5	50.1	55.1	56.8	57.7	58.2	58.2	58.6	58.6	58.6	58.7	58.7	58.7	58.7
>=16000	28.4	43.9	47.9	50.6	55.6	57.2	58.1	58.7	58.7	59.0	59.0	59.0	59.2	59.2	59.2	59.2
>=14000	28.9	45.8	50.2	52.9	58.0	60.0	60.9	61.4	61.4	61.8	61.8	61.8	61.9	61.9	61.9	61.9
>=12000	29.4	47.3	52.3	55.3	60.6	62.6	63.5	64.1	64.1	64.4	64.4	64.4	64.5	64.5	64.5	64.5
>=10000	30.3	48.5	53.7	56.9	62.6	64.5	65.2	66.2	66.2	66.6	66.6	66.6	66.7	66.7	66.7	66.7
>=9000	30.5	49.0	54.1	57.6	63.3	65.2	66.4	66.9	66.9	67.3	67.3	67.3	67.5	67.5	67.5	67.5
>=8000	31.1	50.1	55.6	59.3	65.0	67.0	68.2	68.8	68.8	69.1	69.1	69.1	69.3	69.3	69.3	69.3
>=7000	31.1	50.6	56.1	59.7	65.6	67.7	68.9	69.5	69.5	69.8	69.8	69.9	70.0	70.0	70.0	70.0
>=6000	31.2	50.9	56.4	60.1	65.9	68.1	69.2	69.8	69.8	70.1	70.1	70.3	70.4	70.4	70.4	70.4
>=5000	32.2	52.3	57.9	61.8	67.6	69.9	71.1	71.6	71.6	72.0	72.0	72.1	72.2	72.2	72.2	72.2
>=4500	33.0	53.2	59.0	63.2	69.1	71.4	72.5	73.1	73.1	73.5	73.5	73.6	73.7	73.7	73.7	73.7
>=4000	33.6	54.3	60.4	64.6	70.8	73.1	74.3	74.8	74.8	75.2	75.2	75.3	75.4	75.4	75.4	75.4
>=3500	34.4	55.8	62.0	66.4	72.7	74.9	76.1	76.7	76.7	77.0	77.0	77.1	77.2	77.2	77.2	77.2
>=3000	35.7	58.2	64.4	68.8	75.1	77.3	78.5	79.1	79.1	79.4	79.4	79.5	79.6	79.6	79.6	79.6
>=2500	38.1	61.8	68.3	72.9	79.3	81.6	82.7	83.3	83.3	83.6	83.6	83.8	83.9	83.9	83.9	83.9
>=2000	40.3	65.4	72.4	77.2	83.9	86.3	87.6	88.3	88.3	88.7	88.8	88.9	89.0	89.0	89.0	89.0
>=1800	40.7	66.5	73.6	78.4	85.0	87.4	88.9	89.6	89.6	89.9	90.0	90.2	90.3	90.3	90.3	90.3
>=1500	41.6	68.4	76.0	81.1	87.8	90.3	91.9	92.6	92.6	93.1	93.2	93.4	93.5	93.5	93.5	93.5
>=1200	41.8	69.5	77.6	82.7	89.4	91.9	93.5	94.3	94.3	94.9	95.0	95.1	95.2	95.2	95.2	95.2
>=1000	41.9	70.4	78.6	84.3	91.2	93.7	95.4	96.2	96.2	96.8	96.9	97.0	97.1	97.1	97.1	97.1
>=900	41.9	70.4	78.6	84.3	91.4	93.9	95.9	96.7	96.7	97.3	97.4	97.5	97.6	97.6	97.6	97.6
>=800	41.9	70.4	78.7	84.6	91.8	94.3	96.3	97.3	97.4	98.1	98.3	98.4	98.5	98.5	98.5	98.5
>=700	41.9	70.5	78.9	84.8	92.2	94.7	96.8	97.7	97.8	98.5	98.7	98.9	99.0	99.0	99.0	99.0
>=600	41.9	70.5	78.9	84.8	92.2	94.9	97.0	98.1	98.2	99.0	99.2	99.3	99.4	99.4	99.4	99.4
>=500	41.9	70.5	78.9	84.9	92.3	95.1	97.3	98.3	98.4	99.2	99.4	99.5	99.7	99.7	99.7	99.7
>=400	41.9	70.5	78.9	84.9	92.3	95.0	97.3	98.4	98.5	99.3	99.5	99.7	99.8	99.8	99.8	99.8
>=300	41.9	70.5	78.9	84.9	92.3	95.0	97.3	98.4	98.5	99.4	99.7	99.8	99.9	99.9	99.9	99.9
>=200	41.9	70.5	78.9	84.9	92.3	95.0	97.3	98.4	98.5	99.4	99.7	99.8	99.9	99.9	99.9	99.9
>=100	41.9	70.5	78.9	84.9	92.3	95.0	97.3	98.4	98.5	99.5	99.8	99.9	100.0	100.0	100.0	100.0
>=0	41.9	70.5	78.9	84.9	92.3	95.1	97.3	98.4	98.5	99.5	99.8	99.9	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 874

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	30.6	44.8	47.2	49.9	52.1	52.1	52.3	52.3	52.4	52.4	52.4	52.4	52.4	52.4	52.4
>=20000	33.5	50.6	53.4	56.3	58.5	58.5	58.8	58.8	59.0	59.0	59.0	59.0	59.0	59.0	59.0
>=18000	33.6	51.4	54.2	57.2	59.4	59.4	59.8	59.8	59.9	59.9	59.9	59.9	59.9	59.9	59.9
>=16000	34.0	51.9	54.8	57.8	60.0	60.0	60.3	60.3	60.5	60.5	60.5	60.5	60.5	60.5	60.5
>=14000	35.7	55.1	58.5	61.7	64.1	64.1	64.4	64.4	64.5	64.5	64.5	64.5	64.5	64.5	64.5
>=12000	36.9	57.3	60.8	64.1	66.5	66.5	66.9	66.9	67.0	67.0	67.0	67.0	67.0	67.0	67.0
>=10000	37.9	59.8	63.6	66.9	69.3	69.4	69.9	69.9	70.0	70.0	70.0	70.0	70.0	70.0	70.0
>=9000	38.1	60.5	64.4	67.7	70.1	70.2	70.7	70.7	70.8	70.8	70.8	70.8	70.8	70.8	70.8
>=8000	39.1	62.6	66.6	70.0	72.4	72.7	73.1	73.1	73.3	73.3	73.3	73.3	73.3	73.3	73.3
>=7000	39.7	64.1	68.3	71.6	74.1	74.3	74.8	74.8	74.9	74.9	74.9	74.9	74.9	74.9	74.9
>=6000	40.3	65.0	69.2	72.6	75.1	75.3	75.8	75.8	75.9	75.9	75.9	75.9	75.9	75.9	75.9
>=5000	41.3	66.4	70.7	74.1	76.6	76.9	77.3	77.3	77.4	77.4	77.4	77.4	77.4	77.4	77.4
>=4500	41.5	67.0	71.3	74.7	77.2	77.4	77.9	77.9	78.0	78.0	78.0	78.0	78.0	78.0	78.0
>=4000	42.2	68.5	72.9	76.4	79.0	79.3	79.9	79.9	80.0	80.0	80.0	80.0	80.0	80.0	80.0
>=3500	42.7	69.5	74.1	77.6	80.1	80.5	81.0	81.0	81.2	81.2	81.2	81.2	81.2	81.2	81.2
>=3000	43.7	71.0	75.6	79.4	82.0	82.3	83.0	83.0	83.3	83.3	83.3	83.3	83.3	83.3	83.3
>=2500	45.2	74.0	78.8	83.1	85.8	86.2	86.9	86.9	87.1	87.1	87.1	87.1	87.1	87.1	87.1
>=2000	46.5	76.3	81.6	86.2	89.0	89.4	90.3	90.3	90.6	90.6	90.6	90.6	90.6	90.6	90.6
>=1800	46.6	76.9	82.3	86.9	89.8	90.2	91.2	91.2	91.4	91.4	91.4	91.4	91.4	91.4	91.4
>=1500	47.0	78.7	84.4	89.0	92.0	92.4	93.4	93.5	93.8	93.8	93.8	93.8	93.8	93.8	93.8
>=1200	47.1	79.7	85.5	90.1	93.1	93.7	94.9	95.0	95.3	95.3	95.3	95.3	95.3	95.3	95.3
>=1000	47.2	80.6	86.6	91.4	94.4	95.2	96.5	96.7	97.2	97.2	97.2	97.2	97.2	97.2	97.2
>=900	47.3	80.7	86.9	91.9	95.0	95.9	97.3	97.6	98.0	98.0	98.0	98.0	98.0	98.0	98.0
>=800	47.3	81.0	87.2	92.2	95.7	96.6	98.0	98.4	98.8	98.8	98.8	98.8	98.8	98.8	98.8
>=700	47.3	81.2	87.3	92.4	96.0	97.0	98.4	98.7	99.2	99.3	99.3	99.3	99.3	99.3	99.3
>=600	47.3	81.3	87.4	92.6	96.2	97.2	98.6	99.1	99.5	99.7	99.7	99.7	99.7	99.7	99.7
>=500	47.3	81.3	87.4	92.6	96.2	97.2	98.7	99.2	99.9	100.0	100.0	100.0	100.0	100.0	100.0
>=400	47.3	81.3	87.4	92.6	96.2	97.2	98.7	99.2	99.9	100.0	100.0	100.0	100.0	100.0	100.0
>=300	47.3	81.3	87.4	92.6	96.2	97.2	98.7	99.2	99.9	100.0	100.0	100.0	100.0	100.0	100.0
>=200	47.3	81.3	87.4	92.6	96.2	97.2	98.7	99.2	99.9	100.0	100.0	100.0	100.0	100.0	100.0
>=100	47.3	81.3	87.4	92.6	96.2	97.2	98.7	99.2	99.9	100.0	100.0	100.0	100.0	100.0	100.0
>=0	47.3	81.3	87.4	92.6	96.2	97.2	98.7	99.2	99.9	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 860

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 1900 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16
UNLIMIT	34.7	52.2	53.7	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2
>=20000	37.7	58.3	60.0	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6
>=18000	38.1	59.1	60.9	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5
>=16000	38.7	59.7	61.6	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2
>=14000	40.0	62.4	64.4	64.9	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1
>=12000	42.0	65.1	67.0	67.7	67.9	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0
>=10000	42.8	67.4	69.4	70.2	70.4	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7
>= 9000	43.4	68.4	70.4	71.2	71.5	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7
>= 8000	44.1	69.9	72.2	73.0	73.2	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4
>= 7000	44.4	70.7	73.0	73.8	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0
>= 6000	44.6	71.0	73.4	74.2	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5
>= 5000	45.9	73.4	75.8	76.7	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1
>= 4500	46.2	74.5	77.0	77.9	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2
>= 4000	47.2	76.2	78.7	79.6	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
>= 3500	48.1	77.3	79.8	80.8	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1
>= 3000	49.8	79.7	82.2	83.2	83.6	83.6	83.6	83.6	83.6	83.6	83.6	83.6	83.6	83.6	83.6	83.6
>= 2500	51.1	82.4	84.9	85.8	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4
>= 2000	52.2	85.1	87.9	88.9	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5
>= 1800	52.6	85.9	88.8	89.8	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4
>= 1500	53.3	88.0	91.2	92.6	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4
>= 1200	53.7	89.8	93.0	94.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5
>= 1000	53.7	90.4	94.3	96.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0
>= 900	53.7	90.8	94.7	96.4	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5
>= 800	53.8	91.2	95.2	97.1	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2
>= 700	53.8	91.3	95.3	97.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3
>= 600	53.8	91.5	95.6	97.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
>= 500	53.8	91.5	95.6	97.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
>= 400	53.8	91.5	95.6	97.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7
>= 300	54.0	91.6	95.8	97.8	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
>= 200	54.0	91.6	95.8	97.8	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
>= 100	54.0	91.6	95.8	97.8	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
>= 0	54.0	91.6	95.8	97.8	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9

TOTAL NO. OF OBS : 873



## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 2200 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	36.9	55.0	56.3	57.1	57.2	57.2	57.2	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
>=20000	38.9	58.9	60.3	61.1	61.2	61.2	61.2	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4
>=18000	39.1	59.5	61.0	61.8	62.0	62.0	62.0	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1
>=16000	39.2	60.0	61.5	62.3	62.5	62.5	62.5	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6
>=14000	40.1	61.8	63.4	64.2	64.4	64.4	64.4	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5
>=12000	41.8	64.1	65.9	66.7	66.9	66.9	66.9	67.0	67.1	67.1	67.1	67.1	67.1	67.1	67.1
>=10000	43.3	66.0	68.0	68.8	69.0	69.0	69.0	69.2	69.3	69.3	69.3	69.3	69.3	69.3	69.3
>= 9000	43.5	66.4	68.5	69.3	69.5	69.5	69.5	69.6	69.7	69.7	69.7	69.7	69.7	69.7	69.7
>= 8000	44.6	68.8	71.0	71.9	72.1	72.1	72.1	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3
>= 7000	45.4	70.1	72.2	73.1	73.3	73.3	73.3	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6
>= 6000	45.8	71.0	73.1	74.0	74.2	74.2	74.2	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5
>= 5000	47.1	72.7	74.9	75.9	76.2	76.2	76.2	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4
>= 4500	47.8	74.0	76.3	77.3	77.5	77.5	77.5	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7
>= 4000	48.6	75.1	77.5	78.5	78.8	78.8	78.8	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0
>= 3500	49.8	76.7	79.1	80.1	80.3	80.3	80.3	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6
>= 3000	51.0	79.4	82.0	83.2	83.4	83.4	83.4	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7
>= 2500	52.4	81.9	84.7	86.0	86.2	86.2	86.2	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6
>= 2000	54.2	84.6	87.7	89.0	89.3	89.3	89.3	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6
>= 1800	54.4	85.4	88.5	89.8	90.1	90.1	90.1	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4
>= 1500	55.8	87.9	91.2	92.5	92.8	92.8	92.8	93.1	93.2	93.3	93.3	93.3	93.3	93.3	93.3
>= 1200	56.2	89.8	93.2	94.9	95.3	95.3	95.3	95.8	95.8	95.9	95.9	95.9	95.9	95.9	95.9
>= 1000	56.4	90.4	93.8	95.5	95.8	95.8	95.8	96.5	96.5	96.6	96.6	96.6	96.6	96.6	96.6
>= 900	56.5	91.0	94.5	96.2	96.5	96.5	96.5	97.1	97.3	97.4	97.4	97.4	97.4	97.4	97.4
>= 800	56.5	91.2	94.8	96.6	97.1	97.2	97.6	97.9	98.0	98.0	98.0	98.0	98.0	98.0	98.0
>= 700	56.5	91.6	95.5	97.5	98.1	98.2	98.6	98.9	99.0	99.0	99.0	99.0	99.0	99.0	99.0
>= 600	56.5	91.8	95.6	97.6	98.4	98.5	99.0	99.2	99.3	99.3	99.3	99.3	99.3	99.3	99.3
>= 500	56.5	92.0	95.8	97.9	98.6	98.8	99.2	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>= 400	56.5	92.1	95.9	98.1	98.9	99.1	99.5	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 300	56.5	92.1	95.9	98.1	98.9	99.2	99.7	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 200	56.5	92.1	95.9	98.1	98.9	99.2	99.7	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 100	56.5	92.1	95.9	98.1	98.9	99.2	99.7	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 0	56.5	92.1	95.9	98.1	98.9	99.2	99.7	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 885

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : FEB  
HOUR : ALL

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=2	>=1	1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4
UNLIMIT	30.0	44.8	47.0	48.8	50.5	50.9	51.4	51.6	51.6	51.6	51.8	51.8	51.8	51.9	51.9	52.0
>=20000	31.8	48.5	51.0	53.0	54.7	55.2	55.7	56.0	56.0	56.2	56.2	56.2	56.2	56.2	56.3	56.4
>=18000	32.0	49.0	51.5	53.6	55.4	55.9	56.4	56.7	56.7	56.7	56.8	56.9	56.9	56.9	56.9	57.0
>=16000	32.2	49.3	51.9	53.9	55.7	56.3	56.8	57.0	57.1	57.1	57.2	57.3	57.3	57.3	57.3	57.4
>=14000	33.1	51.1	53.9	56.1	57.9	58.5	59.1	59.3	59.3	59.3	59.5	59.6	59.6	59.6	59.6	59.7
>=12000	34.1	52.9	55.9	58.1	60.2	60.7	61.4	61.6	61.6	61.6	61.8	61.9	61.9	61.9	61.9	62.1
>=10000	35.1	54.8	58.0	60.4	62.5	63.1	63.8	64.1	64.1	64.1	64.3	64.4	64.4	64.4	64.4	64.5
>= 9000	35.3	55.3	58.5	60.9	63.0	63.6	64.3	64.6	64.6	64.6	64.8	64.9	64.9	64.9	65.0	65.1
>= 8000	36.2	57.2	60.5	63.1	65.2	65.8	66.6	66.9	66.9	66.9	67.0	67.1	67.1	67.2	67.2	67.3
>= 7000	36.7	58.0	61.5	64.1	66.2	66.9	67.6	67.9	67.9	68.1	68.2	68.2	68.2	68.2	68.3	68.4
>= 6000	37.0	58.6	62.0	64.6	66.8	67.5	68.2	68.5	68.5	68.7	68.8	68.8	68.8	68.8	68.8	68.9
>= 5000	38.1	60.3	63.8	66.5	68.7	69.4	70.2	70.4	70.5	70.6	70.7	70.7	70.7	70.7	70.8	70.9
>= 4500	38.6	61.4	65.0	67.8	70.0	70.7	71.4	71.7	71.8	71.9	72.0	72.0	72.0	72.0	72.1	72.2
>= 4000	39.4	62.8	66.4	69.2	71.5	72.2	73.0	73.3	73.3	73.5	73.6	73.6	73.6	73.6	73.7	73.8
>= 3500	40.1	64.0	67.7	70.5	72.9	73.6	74.3	74.6	74.7	74.9	74.9	75.0	75.0	75.0	75.0	75.1
>= 3000	41.4	66.3	70.1	73.1	75.5	76.2	77.0	77.3	77.4	77.6	77.6	77.7	77.7	77.7	77.7	77.8
>= 2500	43.0	69.1	73.2	76.3	78.8	79.6	80.4	80.7	80.8	81.0	81.0	81.1	81.1	81.1	81.1	81.2
>= 2000	44.7	72.3	76.7	80.0	82.7	83.5	84.4	84.7	84.8	85.0	85.1	85.1	85.1	85.1	85.2	85.3
>= 1800	45.0	73.2	77.7	81.1	83.8	84.6	85.5	85.9	85.9	86.1	86.2	86.2	86.2	86.3	86.3	86.4
>= 1500	45.9	75.6	80.4	84.1	86.9	87.8	88.8	89.2	89.2	89.5	89.6	89.6	89.6	89.7	89.7	89.8
>= 1200	46.3	77.0	82.1	85.9	88.9	89.8	90.8	91.3	91.4	91.6	91.7	91.7	91.7	91.8	91.8	91.9
>= 1000	46.5	78.1	83.5	87.6	90.7	91.7	92.8	93.3	93.3	93.6	93.7	93.8	93.8	93.8	93.8	93.9
>= 900	46.5	78.4	83.9	88.1	91.2	92.2	93.4	93.9	94.0	94.3	94.4	94.4	94.4	94.5	94.5	94.6
>= 800	46.6	78.7	84.3	88.5	91.8	92.8	94.1	94.6	94.7	95.1	95.2	95.2	95.2	95.2	95.3	95.4
>= 700	46.6	79.0	84.6	89.0	92.3	93.4	94.6	95.2	95.3	95.7	95.8	95.9	95.9	95.9	95.9	96.0
>= 600	46.7	79.3	85.0	89.5	93.0	94.1	95.4	96.1	96.1	96.6	96.7	96.7	96.7	96.8	96.8	96.9
>= 500	46.7	79.5	85.2	89.8	93.3	94.4	95.9	96.6	96.6	97.2	97.3	97.4	97.4	97.4	97.4	97.5
>= 400	46.7	79.5	85.3	89.9	93.5	94.7	96.2	96.9	97.0	97.6	97.8	97.8	97.8	97.9	97.9	98.0
>= 300	46.7	79.5	85.3	90.0	93.6	94.8	96.3	97.1	97.2	97.9	98.2	98.2	98.2	98.2	98.3	98.5
>= 200	46.7	79.5	85.3	90.0	93.6	94.9	96.3	97.2	97.3	98.0	98.3	98.3	98.3	98.4	98.5	98.9
>= 100	46.7	79.5	85.3	90.0	93.6	94.9	96.4	97.2	97.3	98.1	98.4	98.4	98.4	98.6	98.6	99.3
>= 0	46.7	79.5	85.3	90.0	93.6	94.9	96.4	97.2	97.3	98.1	98.4	98.4	98.4	98.6	98.6	100.0

TOTAL NO. OF OBS : 7039

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 PERIOD OF RECORD : 1955-1986 MONTH : MAR  
 CLASS : ALL WEATHER HOUR : 0100 LST  
 CONDITION : NONE SPECIFIED

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	SPEED (KNOTS)										TOTAL %	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	
N	1.3	2.9	1.9	.9	.2	.0	.0	.0	.0	.0	.0	7.3
NNE	.9	.5	.5	.1	.1	.0	.0	.0	.0	.0	.0	2.1
NE	.7	.4	.0	.1	.0	.0	.0	.0	.0	.0	.0	1.2
ENE	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8
E	2.0	2.5	.3	.1	.0	.0	.0	.0	.0	.0	.0	4.9
ESE	1.3	2.6	.9	.4	.2	.0	.0	.0	.0	.0	.0	5.4
SE	1.3	1.6	1.3	.7	.3	.2	.0	.0	.0	.0	.0	5.4
SSE	.8	1.1	.9	.7	.4	.2	.0	.0	.0	.0	.0	4.1
S	.8	1.1	1.9	1.4	.3	.1	.0	.0	.0	.0	.0	5.6
SSW	.7	1.6	1.1	.7	.2	.0	.0	.0	.0	.0	.0	4.3
SW	1.0	1.9	.7	.4	.2	.0	.0	.0	.0	.0	.0	4.2
WSW	.4	1.3	2.9	.6	.1	.0	.0	.0	.0	.0	.0	5.3
W	1.4	4.0	5.9	2.4	.7	.0	.0	.0	.0	.0	.0	14.5
WNW	1.2	2.5	2.4	1.7	.2	.0	.0	.0	.0	.0	.0	8.1
NW	1.4	2.1	2.4	1.8	.2	.0	.0	.0	.0	.0	.0	8.0
NNW	.7	2.3	1.7	1.5	.2	.0	.0	.0	.0	.0	.0	6.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.1
ALL	16.5	28.9	25.0	13.6	3.3	.5	.0	.0	.0	.0	.0	100.0

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR  
 HOUR : 0400 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	SPEED (KNOTS)																TOTAL %	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56							
N	1.9	2.5	3.0	1.4	.4	.0	.0	.0	.0	.0	.0	9.3	7.3					
NNE	1.1	.8	.5	.4	.1	.0	.0	.0	.0	.0	.0	2.9	6.2					
NE	.6	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	1.0	4.9					
ENE	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	3.4					
E	2.4	3.3	1.1	.1	.0	.0	.0	.0	.0	.0	.0	7.0	4.7					
ESE	2.1	3.5	1.7	.2	.2	.0	.0	.0	.0	.0	.0	7.8	5.5					
SE	1.5	2.4	2.1	1.4	.3	.1	.0	.0	.0	.0	.0	7.9	7.8					
SSE	.4	.9	1.3	1.0	.2	.1	.0	.0	.0	.0	.0	3.9	9.2					
S	1.2	1.5	1.9	.8	.2	.2	.0	.0	.0	.0	.0	5.8	7.9					
SSW	.3	.8	.7	.2	.2	.0	.0	.0	.0	.0	.0	2.2	8.1					
SW	.9	2.6	1.7	.5	.0	.0	.0	.0	.0	.0	.0	5.7	6.2					
WSW	.7	2.2	1.5	.7	.0	.0	.0	.0	.0	.0	.0	5.1	6.8					
W	1.4	2.6	3.1	1.9	.1	.0	.0	.0	.0	.0	.0	9.2	7.7					
WNW	.6	2.5	2.1	1.2	.1	.2	.0	.0	.0	.0	.0	6.8	8.2					
NW	1.1	1.9	1.5	2.4	.2	.0	.0	.0	.0	.0	.0	7.2	8.6					
NNW	1.0	2.1	1.7	1.6	.1	.1	.0	.0	.0	.0	.0	6.7	7.9					
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0					
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.8	.0					
ALL	17.7	30.4	24.1	14.1	2.1	.7	.0	.0	.0	.0	.0	100.0	6.4					

TOTAL NO. OF OBS : 492

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 PERIOD OF RECORD : 1955-1986 MONTH : MAR  
 CLASS : ALL WEATHER HOUR : 0700 LST  
 CONDITION : NONE SPECIFIED

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

SPEED (KNOTS)																TOTAL		MEAN	
16 PT. 1 - 3   4 - 6   7-10   11-16   17-21   22-27   28-33   34-40   41-47   48-55   >=56																%	WIND	SPEED	
DIR.	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VAR	CLM	ALL
	2.4	3.1	3.0	.8	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.9	1.0	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	1.0	.5	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.2	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	2.1	2.9	.7	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	1.7	5.1	2.3	1.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	1.6	3.3	2.5	2.2	.0	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.4	.7	1.4	.8	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	1.1	1.3	1.3	1.4	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.4	1.1	.5	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.5	1.7	1.1	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.7	1.8	1.5	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.9	2.2	2.4	1.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.6	1.2	1.1	1.8	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.9	.7	.9	1.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	1.3	1.7	2.3	2.3	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	16.8	29.1	22.1	15.0	1.9	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 F  
 MONTH : MAR  
 HOUR : 1000 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

DIR.	1-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	TOTAL	MEAN
											%	WIND
												SPEED
N	.6	1.7	1.6	1.5	.2	.1	.0	.0	.0	.0	5.7	8.8
NNE	.0	.2	.2	.5	.0	.0	.0	.0	.0	.0	.9	9.9
NE	.1	.4	.2	.0	.0	.0	.0	.0	.0	.0	.7	5.1
ENE	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.3	5.3
E	.3	.3	.2	.1	.1	.0	.0	.0	.0	.0	1.0	7.5
ESE	.1	.9	.7	.4	.0	.2	.0	.0	.0	.0	2.3	8.7
SE	.7	2.4	3.4	2.2	.6	.2	.1	.0	.0	.0	9.7	9.6
SSE	1.0	4.2	3.0	1.4	.6	.0	.0	.0	.0	.0	10.3	7.7
S	3.5	5.6	1.7	1.0	.3	.1	.0	.0	.0	.0	12.4	6.1
SSW	1.5	3.1	.9	.3	.1	.0	.0	.0	.0	.0	5.9	5.6
SW	1.4	2.1	1.0	.4	.0	.0	.0	.0	.0	.0	4.9	5.6
WSW	1.4	1.5	1.3	.8	.1	.0	.0	.0	.0	.0	5.1	6.6
W	2.0	2.1	2.3	1.9	.4	.0	.0	.0	.0	.0	8.8	7.7
WNW	.8	2.1	1.6	1.2	.3	.0	.0	.0	.0	.0	6.0	7.8
NW	1.3	3.8	3.3	1.1	.6	.0	.0	.0	.0	.0	10.2	7.6
NNW	.8	3.0	3.3	2.6	.6	.1	.0	.0	.0	.0	10.5	9.0
VAR	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.1	.0
ALL	15.6	33.9	25.0	15.5	3.9	.7	.2	.0	.0	.0	100.0	7.2

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR  
 HOUR : 1300 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT.		SPEED (KNOTS)																TOTAL		MEAN	
DIR.		1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	2	WIND	SPEED						
N		.1	.9	.6	.9	.1	.0	.0	.0	.0	.0	.0	2.6	9.7							
NNE		.1	.1	.3	.4	.2	.0	.0	.0	.0	.0	.0	1.1	11.4							
NE		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0							
ENE		.0	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.4	7.0							
E		.1	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.8	6.0							
ESE		.1	.4	.3	.3	.0	.0	.1	.0	.0	.0	.0	1.2	9.9							
SE		.1	1.3	.9	1.1	.0	.0	.0	.0	.0	.0	.0	3.4	8.6							
SSE		.6	1.8	1.0	1.1	.6	.3	.0	.0	.0	.0	.0	5.4	9.7							
S		1.2	3.5	1.2	.8	.2	.3	.0	.0	.0	.0	.0	7.3	7.3							
SSW		.7	1.7	.9	.5	.3	.1	.1	.0	.0	.0	.0	4.3	8.4							
SW		1.5	2.0	2.1	.9	.4	.1	.0	.0	.0	.0	.0	7.1	7.5							
WSW		1.1	3.4	3.7	2.1	.1	.0	.0	.0	.0	.0	.0	10.5	7.9							
W		1.2	4.6	7.0	8.2	2.5	.3	.0	.0	.0	.0	.0	23.8	10.3							
WNW		.6	3.3	7.4	3.1	.3	.1	.0	.0	.0	.0	.0	14.8	8.8							
NW		.4	3.3	3.9	2.3	.2	.0	.0	.0	.0	.0	.0	10.2	8.4							
NNW		.2	1.6	2.2	1.5	.3	.1	.0	.0	.0	.0	.0	5.9	9.1							
VAR		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0							
CLM		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	.0							
ALL		8.1	28.8	32.0	23.3	5.2	1.3	.2	.0	.0	.0	.0	100.0	8.8							

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR  
 HOUR : 1600 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT.		1	1 - 3	4	- 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	TOTAL	MEAN
DIR.															%	WIND SPEED
N	.0	.4	.2	1.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.8	12.4
NNE	.0	.0	.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	11.5
NE	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	7.0
ENE	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	5.0
E	.2	.0	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	7.4
ESE	.0	.1	.3	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.8	13.0
SE	.2	.2	.3	.3	.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	1.4	12.6
SSE	.0	.9	.6	.1	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0	9.1
S	.1	.9	1.3	1.6	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	4.7	11.4
SSW	.6	.8	.8	.8	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.4	9.0
SW	.5	.8	1.6	1.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	4.0	8.9
WSW	.4	1.0	4.0	3.1	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	9.1	10.1
W	.6	2.4	10.7	22.8	4.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	41.7	12.1
WNW	.0	1.8	6.3	7.5	1.8	.4	.0	.0	.0	.0	.0	.0	.0	.0	17.8	11.6
NW	.1	1.9	3.8	1.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	7.4	8.8
NNW	.1	.3	1.5	.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.9	10.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	.0
ALL	2.9	12.0	32.1	40.8	8.6	2.5	.0	.0	.0	.0	.0	.0	.0	.0	100.0	11.0

TOTAL NO. OF OBS : 991

NOTES :  
 \* = PERCENT < .05



# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR  
 HOUR : 1900 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

SPEED (KNOTS)																TOTAL Σ	MEAN
16 PT. DIR.	1	3	4	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	WIND SPEED			
N	.8	1.2	.5	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.3	6.6	
NNE	.3	.6	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	6.9	
NE	.2	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	5.5	
ENE	.4	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	4.4	
E	.1	.6	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	5.3	
ESE	.2	.6	.2	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.1	7.3	
SE	.2	.2	.2	.4	.3	.4	.1	.0	.1	.0	.0	.0	.0	.0	1.8	14.6	
SSE	.0	.0	.3	.4	.2	.0	.0	.0	.0	.3	.0	.0	.0	.0	.9	12.8	
S	.1	.4	1.7	1.2	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.1	11.2	
SSW	.2	.4	2.4	.4	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	3.6	9.4	
SW	.1	.4	2.2	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.9	9.3	
WSW	.7	1.7	4.4	1.6	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	8.2	8.6	
W	.9	5.2	13.8	11.1	1.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	32.9	10.0	
WNW	.8	4.6	8.1	5.1	1.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	19.9	9.5	
NW	1.1	3.3	2.9	1.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	8.7	7.3	
NNW	.6	1.5	1.0	1.1	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.6	8.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	.0	
ALL	6.4	22.1	38.8	24.8	4.5	1.2	.1	.0	.0	.0	.0	.0	.0	.0	100.0	9.0	

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR  
 HOUR : 2200 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL %	MEAN WIND SPEED
N	.9	2.7	1.3	1.4	.1	.0	.0	.0	.0	.0	.0	6.5	7.4
NNE	.2	1.0	.3	.2	.0	.0	.0	.0	.0	.0	.0	1.7	5.8
NE	.5	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	1.1	4.4
ENE	.1	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.5	5.0
E	.5	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	1.0	4.9
ESE	.7	1.0	.4	.1	.0	.0	.0	.1	.0	.0	.0	2.3	6.3
SE	.2	.9	.5	.8	.2	.1	.0	.0	.0	.0	.0	2.7	9.6
SSE	.5	.8	1.3	.9	.2	.5	.0	.0	.0	.0	.0	4.2	10.4
S	.3	1.0	1.5	1.3	.3	.1	.0	.0	.0	.0	.0	4.5	9.9
SSW	.5	.5	1.6	.7	.0	.0	.0	.0	.0	.0	.0	3.3	8.0
SW	.4	2.8	1.4	.6	.1	.0	.0	.0	.0	.0	.0	5.3	6.7
WSW	1.4	2.1	2.5	1.0	.3	.0	.0	.0	.0	.0	.0	7.4	7.3
W	2.0	6.0	8.5	3.5	.7	.0	.0	.0	.0	.0	.0	20.7	8.0
WNW	.8	3.1	3.4	2.3	.3	.1	.0	.0	.0	.0	.0	10.1	8.2
NW	1.7	3.6	2.4	2.6	.4	.0	.0	.0	.0	.0	.0	10.8	7.8
NNW	1.4	3.4	2.5	1.7	.2	.0	.0	.0	.0	.0	.0	9.3	7.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.5	.0
ALL	12.2	29.9	28.5	17.3	2.8	.8	.0	.1	.0	.0	.0	100.0	7.1

TOTAL NO. OF OBS : 991

NOTES : \* = PERCENT < .05

# 1 - SURFACE WINDS

Q23239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR  
 HOUR : ALL

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	1	- 3	4 - 6	7-10	11-16	17-21	SPEED (KNOTS)					TOTAL %	MEAN WIND SPEED
							22-27	28-33	34-40	41-47	48-55	>56	
N	1.0	1.9	1.5	1.1	.2	.0*	.0	.0	.0	.0	.0	.0	5.7 7.5
NNE	.4	.5	.4	.3	.1	.0	.0	.0	.0	.0	.0	.0	1.7 6.8
NE	.4	.3	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.9 4.8
ENE	.2	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7 4.5
E	1.0	1.3	.4	.1	.0*	.0	.0	.0	.0	.0	.0	.0	2.7 4.8
ESE	.8	1.8	.9	.3	.1	.1	.0*	.0*	.0*	.0	.0	.0	3.9 6.6
SE	.7	1.6	1.4	1.1	.2	.2	.0*	.0*	.0	.0	.0	.0	5.3 8.8
SSE	.5	1.3	1.2	.8	.3	.2	.0	.0	.0	.0	.0	.0	4.3 9.0
S	1.0	1.9	1.6	1.2	.3	.1	.0*	.0*	.0	.0	.0	.0	6.2 8.2
SSW	.6	1.3	1.1	.5	.2	.0*	.0*	.0	.0	.0	.0	.0	3.7 7.7
SW	.8	1.8	1.5	.7	.1	.0*	.0	.0	.0	.0	.0	.0	4.9 7.1
WSW	.8	1.9	2.7	1.3	.1	.0*	.0	.0	.0	.0	.0	.0	6.9 7.9
W	1.3	3.7	6.7	6.6	1.3	.2	.0	.0	.0	.0	.0	.0	19.8 9.8
WNW	.7	2.7	4.0	3.0	.5	.1	.0	.0	.0	.0	.0	.0	11.0 9.2
NW	1.0	2.6	2.7	1.8	.3	.0*	.0	.0	.0	.0	.0	.0	8.3 8.1
NNW	.8	2.0	2.0	1.6	.3	.1	.0	.0	.0	.0	.0	.0	6.8 8.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.9 .0
ALL	12.0	26.9	28.4	20.5	4.1	1.0	.1	.0*	.0	.0	.0	.0	100.0 7.8

TOTAL NO. OF OBS : 7934

NOTES : \* = PERCENT < .05

# 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR  
 HOUR : 0100 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=1	1/2	>=1	1/4	>=1
UNLIMIT	43.8	57.1	57.4	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5
>=20000	45.0	58.8	59.1	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2
>=18000	45.0	59.0	59.3	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4
>=16000	45.2	59.2	59.5	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6
>=14000	46.0	60.4	60.8	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9
>=12000	47.6	62.5	62.8	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9
>=10000	49.8	65.0	65.3	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4
>= 9000	49.9	65.1	65.5	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6
>= 8000	51.0	67.0	67.4	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5
>= 7000	51.5	67.7	68.1	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2
>= 6000	51.8	68.6	69.0	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1
>= 5000	52.4	69.8	70.2	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3
>= 4500	53.7	71.7	72.2	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3
>= 4000	54.6	73.4	73.9	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0
>= 3500	55.7	74.8	75.3	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4
>= 3000	56.8	76.9	77.4	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6
>= 2500	58.2	79.8	80.3	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6
>= 2000	60.0	83.3	83.8	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2
>= 1800	60.4	84.4	84.9	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3
>= 1500	62.1	88.2	88.8	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4
>= 1200	63.1	90.6	91.2	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0
>= 1000	64.2	93.3	93.9	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8
>= 900	64.4	94.2	94.8	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7
>= 800	64.5	94.4	95.1	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2
>= 700	64.9	95.2	96.1	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2
>= 600	65.2	95.7	96.6	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8
>= 500	65.2	95.8	97.0	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3
>= 400	65.3	96.4	97.7	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
>= 300	65.3	96.5	97.8	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1
>= 200	65.3	96.6	97.9	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
>= 100	65.3	96.6	97.9	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
>= 0	65.3	96.6	97.9	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2

TOTAL NO. OF OBS : 981

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : MAR  
HOUR : 0400 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16
UNLIMIT	39.9	53.8	54.1	54.4	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6
>=20000	40.7	55.9	56.2	56.4	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6
>=18000	40.7	55.9	56.2	56.4	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6
>=16000	40.9	56.1	56.4	56.6	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8
>=14000	41.8	57.2	57.5	57.7	57.9	57.9	57.9	57.9	57.9	57.9	57.9	57.9	57.9	57.9	57.9	57.9
>=12000	43.2	58.8	59.1	59.3	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5
>=10000	44.6	60.6	60.9	61.1	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3
>=9000	45.1	61.1	61.4	61.6	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8
>=8000	46.1	62.8	63.2	63.4	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6
>=7000	46.2	63.4	63.7	63.9	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1
>=6000	46.5	63.7	64.0	64.2	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4
>=5000	47.6	65.6	66.0	66.2	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4
>=4500	48.7	67.6	68.0	68.2	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5
>=4000	49.7	69.3	69.7	69.9	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2
>=3500	50.4	70.7	71.2	71.4	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8
>=3000	52.5	73.4	74.0	74.5	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8
>=2500	53.6	75.4	76.0	76.7	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0
>=2000	55.4	79.2	80.0	80.8	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1
>=1800	56.4	81.0	81.8	82.5	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
>=1500	57.9	84.1	85.3	86.4	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7
>=1200	59.5	87.8	89.0	90.3	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6
>=1000	60.7	90.4	91.6	93.1	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4
>=900	61.0	91.4	92.8	94.4	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7
>=800	61.4	92.6	94.2	95.7	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1
>=700	61.5	92.8	94.4	95.9	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3
>=600	61.7	93.6	95.2	96.7	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1
>=500	61.7	93.8	95.5	97.0	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4
>=400	61.7	94.1	95.9	97.6	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2
>=300	61.7	94.1	96.1	98.1	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
>=200	61.7	94.1	96.1	98.1	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
>=100	61.7	94.1	96.1	98.1	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
>=0	61.7	94.1	96.1	98.1	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6

TOTAL NO. OF OBS : 977

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR  
 HOUR : 0700 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	=4	>=3	>=2	1/2	>=1	1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	32.2	45.3	46.9	47.5	48.1	48.3	48.4	48.4	48.4	48.4	48.5	48.5	48.6	48.6	48.6	48.6
>=20000	32.7	46.8	48.4	49.0	49.7	49.9	50.1	50.1	50.1	50.1	50.2	50.2	50.3	50.3	50.3	50.3
>=18000	32.8	47.0	48.6	49.2	49.9	50.2	50.3	50.3	50.3	50.3	50.4	50.4	50.5	50.5	50.5	50.5
>=16000	33.2	47.5	49.1	49.7	50.5	50.7	50.8	50.8	50.8	50.8	50.9	50.9	51.0	51.0	51.0	51.0
>=14000	34.1	48.7	50.4	51.0	51.7	52.0	52.1	52.1	52.1	52.1	52.2	52.2	52.3	52.3	52.3	52.3
>=12000	35.1	50.4	52.1	52.7	53.5	53.8	53.9	53.9	53.9	53.9	54.0	54.0	54.1	54.1	54.1	54.1
>=10000	36.8	52.8	54.6	55.3	56.1	56.4	56.5	56.5	56.5	56.5	56.6	56.6	56.7	56.7	56.7	56.7
>=9000	36.9	53.0	54.9	55.6	56.4	56.7	56.8	56.8	56.8	56.8	56.9	56.9	57.0	57.0	57.0	57.0
>=8000	37.9	54.8	56.6	57.3	58.1	58.4	58.5	58.5	58.5	58.5	58.6	58.6	58.8	58.8	58.8	58.8
>=7000	38.6	56.1	57.9	58.6	59.5	59.8	59.9	59.9	59.9	59.9	60.0	60.0	60.1	60.1	60.1	60.1
>=6000	39.4	57.2	59.2	59.9	60.7	61.0	61.1	61.1	61.1	61.1	61.2	61.2	61.3	61.3	61.3	61.3
>=5000	40.9	59.5	61.5	62.2	63.1	63.4	63.5	63.5	63.5	63.5	63.6	63.6	63.7	63.7	63.7	63.7
>=4500	42.1	61.6	63.8	64.5	65.4	65.7	65.8	65.8	65.8	65.8	65.9	65.9	66.0	66.0	66.0	66.0
>=4000	42.4	62.3	64.5	65.2	66.2	66.5	66.6	66.6	66.6	66.6	66.7	66.7	66.8	66.8	66.8	66.8
>=3500	42.9	63.3	65.5	66.2	67.3	67.7	67.8	67.8	67.8	67.8	67.9	67.9	68.0	68.0	68.0	68.0
>=3000	44.1	66.1	68.4	69.2	70.5	70.8	70.9	70.9	70.9	70.9	71.0	71.0	71.1	71.1	71.1	71.1
>=2500	45.8	69.3	71.8	72.7	74.0	74.4	74.5	74.5	74.5	74.5	74.6	74.6	74.7	74.7	74.7	74.7
>=2000	47.3	72.7	75.5	76.7	78.0	78.4	78.5	78.5	78.5	78.5	78.6	78.6	78.7	78.7	78.7	78.7
>=1800	48.0	73.5	76.4	77.5	78.8	79.2	79.3	79.3	79.3	79.3	79.4	79.4	79.5	79.5	79.5	79.5
>=1500	49.6	78.1	81.1	82.4	83.8	84.2	84.5	84.5	84.5	84.5	84.6	84.6	84.7	84.7	84.7	84.7
>=1200	50.9	81.4	84.4	86.1	87.6	88.0	88.4	88.4	88.4	88.4	88.5	88.5	88.6	88.6	88.6	88.6
>=1000	51.2	83.3	86.5	88.2	90.1	90.6	91.0	91.0	91.0	91.0	91.2	91.2	91.3	91.3	91.3	91.3
>=900	51.3	84.3	87.5	89.3	91.1	91.6	92.0	92.0	92.0	92.0	92.2	92.2	92.3	92.3	92.3	92.3
>=800	51.4	85.3	88.7	90.6	92.6	93.1	93.6	93.7	93.7	93.7	93.9	93.9	94.0	94.0	94.0	94.0
>=700	51.5	85.9	89.8	91.9	94.3	94.8	95.2	95.3	95.3	95.3	95.5	95.5	95.6	95.6	95.6	95.6
>=600	51.5	86.2	90.1	92.4	95.1	95.7	96.2	96.5	96.6	96.7	96.9	96.9	97.0	97.0	97.0	97.0
>=500	51.5	86.3	90.2	92.6	95.3	95.9	96.4	96.7	96.8	97.0	97.2	97.2	97.3	97.3	97.3	97.3
>=400	51.5	86.5	90.4	93.0	95.8	96.5	97.0	97.3	97.4	97.7	98.0	98.0	98.2	98.2	98.2	98.2
>=300	51.5	86.5	90.5	93.1	96.0	96.7	97.2	97.5	97.6	98.1	98.3	98.3	98.5	98.5	98.5	98.5
>=200	51.5	86.5	90.5	93.1	96.0	96.7	97.3	97.7	97.9	98.4	98.6	98.6	98.8	98.8	98.9	98.9
>=100	51.5	86.5	90.5	93.1	96.0	96.7	97.3	97.7	97.9	98.4	98.6	98.6	98.8	98.8	99.1	99.3
>=0	51.5	86.5	90.5	93.1	96.0	96.7	97.3	97.7	97.9	98.4	98.6	98.6	98.8	98.8	99.1	100.0

TOTAL NO. OF OBS : 977

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA

PERIOD OF RECORD : 1955-1986

CLASS : ALL WEATHER

CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

MONTH : MAR

HOUR : 1000 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	31.0	45.5	49.0	50.5	51.5	51.7	52.1	52.3	52.5	52.6	52.6	52.6	52.7	52.7	52.7	52.7
>=20000	32.2	48.5	52.0	53.5	54.6	54.8	55.2	55.4	55.6	55.7	55.7	55.7	55.8	55.8	55.8	55.8
>=18000	32.2	48.6	52.1	53.6	54.7	54.9	55.3	55.5	55.7	55.8	55.8	55.8	55.9	55.9	55.9	55.9
>=16000	32.6	49.3	52.7	54.3	55.3	55.5	55.9	56.1	56.4	56.5	56.5	56.5	56.6	56.6	56.6	56.6
>=14000	33.4	50.9	54.5	56.0	57.1	57.3	57.7	57.9	58.1	58.2	58.2	58.2	58.3	58.3	58.3	58.3
>=12000	34.6	53.0	56.8	58.4	59.5	59.7	60.1	60.3	60.5	60.6	60.6	60.6	60.7	60.7	60.7	60.7
>=10000	35.5	54.8	58.6	60.4	61.5	61.7	62.1	62.3	62.5	62.6	62.6	62.6	62.7	62.8	62.8	62.8
>=9000	35.6	54.9	58.9	60.6	61.7	61.9	62.3	62.5	62.7	62.8	62.8	62.8	62.9	63.0	63.0	63.0
>=8000	36.9	57.1	61.1	63.0	64.1	64.3	64.7	64.9	65.1	65.2	65.2	65.2	65.3	65.4	65.4	65.4
>=7000	37.2	57.4	61.6	63.5	64.6	64.8	65.2	65.4	65.6	65.7	65.7	65.7	65.8	65.9	65.9	65.9
>=6000	37.5	57.8	62.1	64.1	65.1	65.3	65.7	65.9	66.1	66.2	66.2	66.2	66.4	66.5	66.5	66.5
>=5000	37.8	58.7	63.2	65.2	66.2	66.5	66.9	67.1	67.3	67.4	67.4	67.4	67.5	67.6	67.6	67.6
>=4500	38.6	59.8	64.3	66.2	67.3	67.5	67.9	68.1	68.3	68.4	68.4	68.4	68.5	68.6	68.6	68.6
>=4000	39.3	61.1	65.6	67.8	68.9	69.1	69.5	69.7	69.9	70.0	70.0	70.0	70.1	70.2	70.2	70.2
>=3500	40.0	62.6	67.1	69.3	70.3	70.5	70.9	71.1	71.4	71.5	71.5	71.5	71.6	71.7	71.7	71.7
>=3000	42.0	65.8	70.4	72.7	73.9	74.1	74.5	74.7	74.9	75.0	75.0	75.0	75.1	75.2	75.2	75.2
>=2500	44.3	69.6	74.4	76.8	77.9	78.1	78.5	78.7	79.0	79.1	79.1	79.1	79.2	79.3	79.3	79.3
>=2000	46.7	74.5	79.6	82.0	83.2	83.5	84.1	84.3	84.5	84.6	84.6	84.6	84.7	84.8	84.8	84.8
>=1800	47.5	75.6	80.9	83.3	84.7	85.0	85.5	85.7	85.9	86.0	86.0	86.0	86.1	86.2	86.2	86.2
>=1500	49.1	79.9	85.3	88.0	89.5	89.8	90.3	90.5	90.7	90.8	90.8	90.8	90.9	91.0	91.0	91.0
>=1200	49.7	82.2	87.8	90.6	92.2	92.5	93.1	93.5	93.8	93.9	93.9	93.9	94.0	94.1	94.1	94.1
>=1000	50.2	84.0	89.7	92.9	94.5	94.9	95.5	95.9	96.1	96.2	96.2	96.2	96.4	96.5	96.5	96.5
>=900	50.2	84.4	90.1	93.4	95.0	95.4	96.2	96.7	96.9	97.0	97.0	97.0	97.1	97.2	97.2	97.2
>=800	50.2	84.6	90.3	93.8	95.4	95.8	96.9	97.3	97.5	97.6	97.6	97.6	97.7	97.8	97.8	97.8
>=700	50.2	84.7	90.5	94.0	95.7	96.1	97.2	97.6	97.8	97.9	97.9	97.9	98.0	98.1	98.1	98.1
>=600	50.2	84.8	90.6	94.1	95.8	96.2	97.3	97.8	98.1	98.2	98.2	98.2	98.3	98.4	98.4	98.4
>=500	50.2	84.8	90.6	94.1	95.8	96.2	97.3	97.9	98.2	98.3	98.3	98.3	98.4	98.5	98.5	98.5
>=400	50.2	84.8	90.6	94.1	96.1	96.7	97.7	98.3	98.6	98.7	98.7	98.7	98.9	99.0	99.0	99.0
>=300	50.2	84.8	90.6	94.1	96.2	96.8	97.8	98.4	98.7	98.9	98.9	98.9	99.0	99.1	99.1	99.1
>=200	50.2	84.8	90.6	94.1	96.2	96.8	97.8	98.4	98.7	99.1	99.1	99.1	99.2	99.3	99.3	99.3
>=100	50.2	84.8	90.6	94.1	96.2	96.8	97.8	98.5	98.9	99.2	99.2	99.2	99.3	99.4	99.7	99.7
>=0	50.2	84.8	90.6	94.1	96.2	96.8	97.8	98.5	98.9	99.2	99.2	99.2	99.3	99.4	99.8	100.0

TOTAL NO. OF OBS : 960

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR  
 HOUR : 1300 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=2	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	38.1	55.0	56.3	57.5	57.9	58.3	58.0	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2
>=20000	39.9	58.8	60.2	61.3	61.7	61.9	61.9	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1
>=18000	40.0	59.5	60.8	62.0	62.4	62.5	62.5	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7
>=16000	40.3	59.9	61.2	62.4	62.8	62.9	62.9	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2
>=14000	41.4	61.5	62.9	64.1	64.6	64.7	64.7	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
>=12000	42.2	63.5	65.1	66.4	66.8	66.9	66.9	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3
>=10000	43.9	66.1	67.7	69.1	69.5	69.8	69.8	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1
>= 9000	44.1	66.3	67.9	69.3	69.8	70.0	70.0	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3
>= 8000	44.9	67.2	69.5	71.1	71.5	71.7	71.7	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0
>= 7000	45.0	68.3	70.1	71.6	72.0	72.2	72.2	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6
>= 6000	45.4	68.7	70.5	72.0	72.5	72.7	72.7	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0
>= 5000	46.6	70.7	72.5	74.0	74.4	74.6	74.6	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9
>= 4500	47.3	71.5	73.3	74.8	75.3	75.5	75.5	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8
>= 4000	48.3	73.0	74.8	76.4	76.8	77.0	77.0	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3
>= 3500	49.5	74.7	76.7	78.4	78.8	79.0	79.0	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3
>= 3000	52.0	78.4	80.5	82.3	82.8	83.1	83.1	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4
>= 2500	55.5	83.4	85.4	87.4	88.0	88.3	88.3	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6
>= 2000	57.4	87.0	89.2	91.4	92.2	92.4	92.5	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8
>= 1800	57.6	87.7	89.9	92.1	92.9	93.1	93.2	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6
>= 1500	58.5	89.9	92.3	94.6	95.4	95.6	95.7	96.0	96.0	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2
>= 1200	58.8	90.7	93.1	95.7	96.7	96.9	97.0	97.3	97.3	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4
>= 1000	59.0	91.5	94.1	96.9	98.0	98.2	98.3	98.8	98.8	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
>= 900	59.0	91.7	94.4	97.3	98.4	98.6	98.8	99.2	99.2	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>= 800	59.0	91.9	94.6	97.5	98.6	98.9	99.0	99.4	99.4	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
>= 700	59.0	91.9	94.6	97.6	98.8	99.0	99.1	99.5	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 600	59.0	91.9	94.6	97.6	98.8	99.1	99.2	99.6	99.6	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 500	59.0	91.9	94.6	97.6	98.8	99.1	99.2	99.6	99.6	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 400	59.0	91.9	94.7	97.7	98.9	99.2	99.3	99.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 300	59.0	91.9	94.7	97.7	98.9	99.2	99.3	99.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 200	59.0	91.9	94.7	97.7	98.9	99.2	99.3	99.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 100	59.0	91.9	94.7	97.7	98.9	99.2	99.3	99.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 0	59.0	91.9	94.7	97.7	98.9	99.2	99.3	99.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 962



## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : MAR  
HOUR : 1600 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=2	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16
UNLIMIT	43.5	59.7	60.9	61.2	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3
>=20000	45.8	63.5	64.6	65.0	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1
>=18000	46.1	64.1	65.3	65.6	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7
>=16000	46.3	64.5	65.7	66.1	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2
>=14000	47.5	66.7	68.0	68.4	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5
>=12000	48.7	69.0	70.3	70.7	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8
>=10000	50.7	72.1	73.3	73.7	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8
>=9000	51.4	72.7	74.0	74.4	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5
>=8000	52.7	75.3	76.6	77.0	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1
>=7000	53.1	75.9	77.2	77.6	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7
>=6000	53.3	76.5	77.7	78.2	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3
>=5000	54.1	77.6	78.9	79.4	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5
>=4500	55.0	79.2	80.5	81.1	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2
>=4000	55.8	80.2	81.6	82.2	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3
>=3500	56.8	82.0	83.4	84.0	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1
>=3000	58.4	84.5	86.0	86.6	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8
>=2500	60.1	87.2	89.0	90.0	90.3	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4
>=2000	61.4	89.7	91.8	92.9	93.2	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3
>=1800	61.8	90.7	92.8	93.9	94.2	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4
>=1500	62.1	92.2	94.6	95.9	96.2	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4
>=1200	62.3	93.2	95.6	97.0	97.3	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6
>=1000	62.7	93.9	96.5	98.0	98.4	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7
>=900	62.7	94.1	96.8	98.3	98.7	98.8	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
>=800	62.7	94.2	97.0	98.6	99.1	99.2	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>=700	62.8	94.4	97.1	98.7	99.3	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=600	62.8	94.4	97.1	98.7	99.3	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=500	62.8	94.4	97.1	98.7	99.3	99.4	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=400	62.8	94.4	97.1	98.7	99.3	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=300	62.8	94.4	97.1	98.7	99.3	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=200	62.8	94.4	97.1	98.7	99.3	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=100	62.8	94.4	97.1	98.7	99.3	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=0	62.8	94.4	97.1	98.7	99.3	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 956

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : MAR  
HOUR : 1900 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	44.1	59.6	60.5	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6
>=20000	46.1	62.9	63.7	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8
>=18000	46.4	63.4	64.2	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3
>=16000	46.9	64.1	65.0	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1
>=14000	48.5	66.7	67.6	67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.7
>=12000	49.8	69.3	70.2	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3
>=10000	51.2	71.8	72.7	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8
>=9000	51.6	72.3	73.1	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2
>=8000	53.2	74.5	75.4	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6
>=7000	53.7	75.3	76.2	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4
>=6000	53.8	75.4	76.3	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5
>=5000	55.0	77.4	78.3	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5
>=4500	55.5	78.5	79.5	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7
>=4000	56.3	79.5	80.4	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6
>=3500	57.2	80.8	81.9	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1
>=3000	58.5	83.2	84.3	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5
>=2500	59.9	86.0	87.1	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3
>=2000	61.5	89.6	90.8	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
>=1800	61.7	89.9	91.1	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8
>=1500	62.8	92.3	93.5	94.3	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4
>=1200	63.1	93.2	94.8	95.5	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7
>=1000	63.5	94.1	96.1	96.9	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3
>=900	63.6	94.3	96.4	97.1	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5
>=800	63.7	94.8	96.9	97.6	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1
>=700	63.7	95.0	97.1	97.8	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3
>=600	63.8	95.3	97.4	98.1	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
>=500	63.8	95.5	97.7	98.6	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>=400	63.8	95.7	98.0	99.2	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=300	63.8	95.7	98.0	99.2	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=200	63.8	95.7	98.0	99.2	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=100	63.8	95.7	98.0	99.2	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=0	63.8	95.7	98.0	99.2	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9

TOTAL NO. OF OBS : 959

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR  
 HOUR : 2200 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)																	
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	48.4	62.7	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9
>=20000	49.4	64.3	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5
>=18000	49.4	64.3	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5
>=16000	49.7	64.7	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9
>=14000	50.9	66.2	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4
>=12000	52.1	67.7	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9
>=10000	53.9	70.4	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6
>= 9000	54.2	70.7	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9
>= 8000	55.3	72.3	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5
>= 7000	56.2	73.5	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7
>= 6000	56.7	74.5	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7
>= 5000	57.6	76.2	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4
>= 4500	58.3	78.0	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2
>= 4000	59.0	79.4	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6
>= 3500	59.5	80.2	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
>= 3000	60.1	81.9	82.1	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2
>= 2500	61.9	85.3	85.5	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6
>= 2000	64.2	89.5	89.9	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1
>= 1800	64.6	90.5	90.9	91.1	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
>= 1500	65.3	92.6	93.1	93.3	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4
>= 1200	65.9	93.7	94.5	94.9	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2
>= 1000	66.3	94.9	95.8	96.2	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6
>= 900	66.6	95.7	96.6	97.0	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4
>= 800	66.6	95.9	96.8	97.2	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6
>= 700	66.8	96.3	97.3	97.8	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2
>= 600	66.8	96.7	97.7	98.2	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8
>= 500	67.1	97.1	98.1	98.9	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>= 400	67.1	97.2	98.2	99.2	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 300	67.1	97.2	98.2	99.2	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 200	67.1	97.3	98.3	99.3	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 100	67.1	97.3	98.3	99.3	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 0	67.1	97.3	98.3	99.3	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9

TOTAL NO. OF OBS : 967

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : MAR  
HOUR : ALL

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1 1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	40.1	54.8	56.0	56.5	56.8	56.8	56.9	56.9	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
>=20000	41.5	57.4	58.6	59.1	59.4	59.5	59.5	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.7
>=18000	41.6	57.7	58.9	59.4	59.7	59.7	59.8	59.8	59.9	59.9	59.9	59.9	59.9	59.9	59.9	59.9
>=16000	41.9	58.1	59.3	59.8	60.1	60.2	60.3	60.3	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4
>=14000	42.9	59.8	61.0	61.5	61.8	61.9	62.0	62.0	62.0	62.1	62.1	62.1	62.1	62.1	62.1	62.1
>=12000	44.2	61.8	63.0	63.5	63.9	64.0	64.1	64.1	64.1	64.1	64.1	64.1	64.2	64.2	64.2	64.2
>=10000	45.8	64.2	65.4	66.0	66.4	66.4	66.5	66.6	66.6	66.6	66.6	66.6	66.6	66.7	66.7	66.7
>=9000	46.1	64.5	65.8	66.4	66.7	66.8	66.9	66.9	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
>=8000	47.2	66.4	67.7	68.4	68.7	68.8	68.9	68.9	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.1
>=7000	47.7	67.2	68.5	69.2	69.5	69.6	69.7	69.7	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8
>=6000	48.0	67.8	69.1	69.8	70.1	70.2	70.3	70.4	70.4	70.4	70.4	70.4	70.5	70.5	70.5	70.5
>=5000	49.0	69.4	70.8	71.5	71.8	71.9	72.0	72.1	72.1	72.1	72.1	72.1	72.2	72.2	72.2	72.2
>=4500	49.9	71.0	72.4	73.1	73.4	73.5	73.6	73.7	73.7	73.7	73.7	73.7	73.8	73.8	73.8	73.8
>=4000	50.7	72.3	73.7	74.4	74.8	74.9	75.0	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.2
>=3500	51.5	73.6	75.2	75.9	76.3	76.4	76.4	76.5	76.5	76.5	76.5	76.5	76.6	76.6	76.6	76.6
>=3000	53.0	76.3	77.8	78.7	79.1	79.2	79.3	79.3	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.5
>=2500	54.9	79.5	81.2	82.1	82.6	82.7	82.8	82.8	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9
>=2000	56.7	83.2	85.0	86.1	86.6	86.8	86.9	86.9	87.0	87.0	87.0	87.0	87.1	87.1	87.1	87.1
>=1800	57.3	84.1	86.1	87.2	87.7	87.8	87.9	88.0	88.0	88.1	88.1	88.1	88.1	88.1	88.1	88.1
>=1500	58.4	87.1	89.2	90.5	91.1	91.2	91.4	91.4	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.6
>=1200	59.2	89.1	91.3	92.8	93.4	93.5	93.7	93.8	93.9	93.9	93.9	93.9	94.0	94.0	94.0	94.0
>=1000	59.7	90.7	93.0	94.6	95.4	95.5	95.7	95.9	95.9	95.9	96.0	96.0	96.0	96.0	96.0	96.0
>=900	59.9	91.3	93.7	95.3	96.1	96.2	96.5	96.6	96.6	96.7	96.7	96.7	96.7	96.7	96.7	96.7
>=800	59.9	91.7	94.2	95.9	96.7	96.9	97.2	97.3	97.3	97.4	97.4	97.4	97.4	97.4	97.4	97.5
>=700	60.1	92.0	94.6	96.4	97.3	97.4	97.7	97.9	97.9	97.9	98.0	98.0	98.0	98.0	98.0	98.0
>=600	60.1	92.3	94.9	96.7	97.6	97.9	98.2	98.3	98.4	98.5	98.5	98.5	98.5	98.5	98.5	98.5
>=500	60.2	92.4	95.1	97.0	97.9	98.2	98.5	98.7	98.7	98.8	98.9	98.9	98.9	98.9	98.9	98.9
>=400	60.2	92.6	95.3	97.3	98.3	98.6	98.9	99.1	99.2	99.3	99.3	99.3	99.4	99.4	99.4	99.4
>=300	60.2	92.6	95.4	97.4	98.5	98.7	99.1	99.3	99.4	99.5	99.5	99.5	99.6	99.6	99.6	99.6
>=200	60.2	92.7	95.4	97.4	98.5	98.7	99.1	99.4	99.4	99.6	99.6	99.6	99.7	99.7	99.7	99.7
>=100	60.2	92.7	95.4	97.4	98.5	98.7	99.1	99.4	99.4	99.6	99.7	99.7	99.7	99.7	99.8	99.8
>=0	60.2	92.7	95.4	97.4	98.5	98.7	99.1	99.4	99.4	99.6	99.7	99.7	99.7	99.7	99.8	100.0

TOTAL NO. OF OBS : 7739

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : 0100 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT.		SPEED (KNOTS)																TOTAL		MEAN	
DIR.		1	3	4	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	%	WIND SPEED					
N	.8	1.9	1.5	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.9	6.7					
NNE	.7	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	3.0					
NE	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	3.2					
ENE	.1	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	4.3					
E	1.1	1.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.8	4.3					
ESE	1.5	2.2	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.3	4.6					
SE	.9	.9	.6	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.4	7.2					
SSE	.5	.7	.4	.8	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.8	8.7					
S	.7	.9	1.5	1.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	4.5	8.6					
SSW	.7	2.1	1.4	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.7	6.4					
SW	.6	3.0	2.8	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.3	7.1					
WSW	.8	3.4	3.3	1.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.3	7.4					
W	1.9	5.0	8.6	3.9	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	19.9	8.2					
WNW	1.5	2.7	2.4	1.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.3	7.7					
NW	2.4	1.7	2.8	1.5	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	9.0	7.7					
NNW	1.1	1.8	1.9	1.5	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	6.7	8.2					
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0					
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.8	.0					
ALL	15.8	28.9	28.0	14.9	2.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	100.0	6.6					

TOTAL NO. OF OBS : 960

NOTES :  
 # = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : 0400 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

DIR.		SPEED (KNOTS)										TOTAL %	MEAN WIND SPEED					
		1-5	6-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56							
N	1.5	2.3	1.8	.8	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.5	6.7
NNE	.5	.6	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.4	4.5
NE	.7	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.4	3.5
ENE	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	2.7
E	2.1	2.8	1.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.1	4.9
ESE	2.5	2.9	.8	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.7	4.9
SE	1.0	1.7	.8	.9	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.9	7.6
SSE	.5	.4	.5	.8	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.6	9.5
S	.7	1.5	2.1	.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.3	7.8
SSW	.6	1.5	1.4	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.0	6.8
SW	.7	2.0	2.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.4	7.0
WSW	.8	2.9	2.4	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.0	7.1
W	1.1	4.6	5.6	2.9	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14.6	7.9
WNW	.6	2.6	2.8	1.8	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.0	8.1
NW	.9	1.2	2.3	1.9	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.9	9.1
NNW	.7	1.2	1.1	1.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.6	8.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14.1	.0
ALL	15.8	28.9	25.0	13.6	2.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	6.2

TOTAL NO. OF OBS : 960

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : 0700 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.		SPEED (KNOTS)											TOTAL %	MEAN	
		1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56		WIND	SPEED
N	1.9	2.6	2.3	1.2	.4	.0	.0	.0	.0	.0	.0	.0	8.4	7.1	
NNE	.8	.5	.3	.1	.1	.0	.0	.0	.0	.0	.0	.0	1.9	5.9	
NE	.7	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.4	3.8	
ENE	.2	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	4.4	
E	2.2	1.8	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	4.4	4.0	
ESE	2.1	2.9	1.8	.3	.1	.0	.0	.0	.0	.0	.0	.0	7.2	5.4	
SE	1.8	2.9	2.2	.6	.5	.1	.1	.0	.0	.0	.0	.0	8.2	7.1	
SSE	1.0	1.2	1.2	1.2	.7	.1	.0	.0	.0	.0	.0	.0	5.6	9.3	
S	.6	1.5	1.0	.3	.0	.1	.0	.0	.0	.0	.0	.0	3.5	7.0	
SSW	.6	1.0	2.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	4.1	7.4	
SW	.6	1.4	2.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	5.0	7.1	
WSW	.7	2.0	2.6	.6	.0	.0	.0	.0	.0	.0	.0	.0	5.9	6.8	
W	1.5	3.3	4.5	1.8	.0	.1	.0	.0	.0	.0	.0	.0	11.1	7.5	
WNW	1.1	1.8	2.5	1.0	.0	.1	.0	.0	.0	.0	.0	.0	6.6	7.5	
NW	1.2	1.5	1.4	2.0	.1	.0	.0	.0	.0	.0	.0	.0	6.1	8.3	
NNW	1.0	1.2	1.4	2.0	.4	.0	.0	.0	.0	.0	.0	.0	6.0	8.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.7	.0	
ALL	18.2	26.6	26.2	12.2	2.4	.5	.1	.0	.0	.0	.0	.0	100.0	6.1	

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : 1000 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)																TOTAL	MEAN
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	%	WIND					
N	.5	1.5	.7	.7	.4	.2	.0	.0	.0	.0	.0	4.1	9.3					
NNE	.1	.1	.0	.3	.0	.0	.0	.0	.0	.0	.0	.5	10.0					
NE	.0	.1	.0	.2	.0	.0	.0	.0	.0	.0	.0	.3	10.3					
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0					
E	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	5.7					
ESE	.2	.0	.1	.0	.3	.0	.0	.0	.0	.0	.0	.6	12.3					
SE	.5	.5	.8	.8	.5	.2	.0	.1	.0	.0	.0	3.5	11.4					
SSE	.9	4.3	2.3	1.4	.3	.2	.0	.0	.0	.0	.0	9.4	7.7					
S	3.0	7.4	2.7	.8	.1	.1	.0	.0	.0	.0	.0	14.2	5.7					
SSW	2.3	4.1	1.2	.6	.0	.0	.0	.0	.0	.0	.0	8.2	5.3					
SW	1.5	3.7	2.1	.5	.0	.0	.0	.0	.0	.0	.0	7.8	5.9					
WSW	1.9	4.0	2.1	.8	.1	.1	.0	.0	.0	.0	.0	9.0	6.2					
W	1.5	5.1	5.2	2.7	.4	.0	.0	.0	.0	.0	.0	14.9	7.9					
WNW	.3	2.5	2.7	1.4	.1	.0	.0	.0	.0	.0	.0	7.0	8.1					
NW	1.0	5.0	2.3	1.4	.3	.0	.0	.0	.0	.0	.0	10.0	7.1					
NNW	1.0	2.8	2.6	1.2	.4	.0	.0	.0	.0	.0	.0	8.1	8.0					
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0					
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	.0					
ALL	14.8	41.4	24.9	12.9	3.0	.8	.0	.1	.0	.0	.0	100.0	7.0					

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT < .05



# 1 - SURFACE WINDS

021323Z : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : 1100 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT.		SPEED (KNOTS)																TOTAL	MEAN
DIR.		1	- 3	4	- 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	%	SPEED			
N		.0	.3			.2	.2	.1	.1	.0	.0	.0	.0	.0	.9	11.3			
NNE		.0	.1			.0	.4	.1	.0	.0	.0	.0	.0	.0	.6	12.7			
NE		.0	.0			.1	.1	.0	.0	.0	.0	.0	.0	.0	.2	10.0			
ENE		.0	.1			.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	4.0			
E		.0	.0			.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	9.0			
ESE		.0	.0			.2	.0	.1	.0	.0	.0	.0	.0	.0	.3	12.3			
SE		.0	.1			.1	.8	.3	.2	.1	.0	.0	.0	.0	1.7	16.3			
SSE		.0	.3			.5	.3	.4	.0	.0	.0	.0	.0	.0	1.6	11.4			
S		.4	1.6			1.0	.4	.7	.0	.0	.0	.0	.0	.0	4.2	8.9			
SSW	1.0	1.6				.8	.7	.2	.1	.0	.0	.0	.0	.0	4.5	7.4			
SW	.5	2.2				2.5	1.7	.0	.1	.0	.0	.0	.0	.0	7.0	8.4			
WSW	.6	2.0				3.7	4.2	.7	.1	.0	.0	.0	.0	.0	11.4	10.1			
W	.6	2.9				13.5	15.7	2.9	.5	.0	.0	.0	.0	.0	36.2	11.3			
WNW	.2	2.1				8.3	6.4	.9	.3	.1	.0	.0	.0	.0	18.4	10.5			
NW	.2	2.3				4.2	2.1	.2	.1	.0	.0	.0	.0	.0	9.1	9.1			
NNW	.1	.6				1.6	.2	.3	.0	.0	.0	.0	.0	.0	2.8	8.6			
VAR	.0	.0				.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
CLM	.0	.0				.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	.0			
ALL	3.7	16.2				37.0	33.2	7.1	1.6	.2	.0	.0	.0	.0	100.0	10.3			

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT < .05

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : APR HOUR : 1600 LST

PERCENTAGE FREQUENCY OF WIND  
DIRECTION VS SPEED  
(FROM HOURLY OBSERVATIONS)

[illegible]

TOTAL NO. OF OBS : 960

NOTES :  
# = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : 1900 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT.		SPEED (KNOTS)																TOTAL		MEAN
DIR.		1	2	3	4	5	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	%	SPEED		
N		.2	1.0					.6	.2	.0	.0	.0	.0	.0	.0	.0	2.1	6.6		
NNE		.1	.5					.0	.1	.0	.0	.0	.0	.0	.0	.0	.7	5.9		
NE		.1	.3					.1	.0	.0	.0	.0	.0	.0	.0	.0	.5	5.8		
ENE		.1	.2					.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	5.0		
E		.0	.1					.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	6.0		
ESE		.1	.1					.0	.2	.0	.0	.0	.0	.0	.0	.0	.4	8.5		
SE		.0	.0					.2	.2	.1	.0	.0	.0	.0	.0	.0	.5	12.6		
SSE		.0	.0					.0	.2	.3	.0	.0	.0	.0	.0	.0	.5	17.8		
S		.0	.1					.9	1.2	.2	.1	.1	.0	.0	.0	.0	2.7	12.9		
SSW		.1	.2					1.2	1.1	.1	.1	.0	.0	.0	.0	.0	2.9	11.3		
SW		.1	.8					1.9	1.4	.0	.0	.0	.0	.0	.0	.0	4.2	9.4		
WSW		.1	1.5					3.5	3.9	.6	.1	.0	.0	.0	.0	.0	9.7	10.4		
W		.6	3.2					17.2	20.1	3.2	.3	.0	.0	.0	.0	.0	44.7	11.1		
WNW		.3	3.4					7.4	7.0	.8	.2	.1	.0	.0	.0	.0	19.3	10.4		
NW		.2	1.9					2.8	.7	.1	.0	.0	.0	.0	.0	.0	5.7	8.1		
NNW		.5	2.1					1.6	.3	.1	.0	.0	.0	.0	.0	.0	4.6	6.9		
VAR		.0	.0					.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CLM		.0	.0					.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	.0		
ALL		2.6	15.5					37.5	36.7	5.6	.8	.2	.0	.0	.0	.0	100.0	10.2		

TOTAL NO. OF OBS : 960

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : 2200 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.		1	-	3	4	-	6	7-10	11-16	17-21	SPEED (KNOTS)							TOTAL %	MEAN WIND SPEED
DIR.		1	-	3	4	-	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56			
N		1.0			1.4			1.1	.6	.1	.0	.0	.0	.0	.0	.0	4.3	6.5	
NNE		.4			.2			.2	.0	.0	.0	.0	.0	.0	.0	.0	.8	4.8	
NE		.3			.0			.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	2.7	
ENE		.0			.2			.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	5.0	
E		.3			.1			.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	2.8	
ESE		.2			.7			.4	.1	.0	.0	.0	.0	.0	.0	.0	1.5	6.1	
SE		.1			.4			.1	.2	.3	.0	.0	.0	.0	.0	.0	1.1	9.8	
SSE		.3			.2			.5	.4	.3	.1	.0	.0	.0	.0	.0	1.9	11.2	
S		.2			1.4			1.5	.5	.4	.1	.0	.0	.0	.0	.0	4.1	8.9	
SSW		.7			.9			1.6	.7	.0	.0	.0	.0	.0	.0	.0	4.0	7.5	
SW		1.7			2.2			2.0	.8	.0	.0	.0	.0	.0	.0	.0	6.7	6.5	
WSW		1.2			4.6			4.8	2.1	.2	.0	.0	.0	.0	.0	.0	12.9	7.6	
W		2.6			7.2			11.7	5.9	.6	.1	.0	.0	.0	.0	.0	28.1	8.4	
WNW		1.6			3.9			3.5	2.6	.3	.0	.0	.0	.0	.0	.0	11.9	7.8	
NW		1.9			2.8			2.2	2.5	.2	.0	.0	.0	.0	.0	.0	9.6	7.8	
NNW		.8			2.3			2.3	.9	.0	.1	.0	.0	.0	.0	.0	6.5	7.2	
VAR		.0			.0			.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CLM		.0			.0			.0	.0	.0	.0	.0	.0	.0	.0	.0	5.8	.0	
ALL		13.4			28.4			31.9	17.5	2.5	.4	.0	.0	.0	.0	.0	100.0	7.3	

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : ALL

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	SPEED (KNOTS)										TOTAL %	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55		
N	.7	1.4	1.1	.6	.2	.1	.0	.0	.0	.0	4.0	7.4
NNE	.3	.3	.1	.2	.0*	.0	.0	.0	.0	.0	1.0	6.5
NE	.3	.2	.1	.1	.0	.0	.0	.0	.0	.0	.6	4.8
ENE	.1	.2	.0*	.0	.0	.0	.0	.0	.0	.0	.4	4.3
E	.7	.8	.2	.0*	.0	.0	.0	.0	.0	.0	1.8	4.5
ESE	.8	1.1	.5	.2	.1	.0	.0	.0	.0	.0	2.6	5.5
SE	.5	.8	.6	.6	.3	.1	.0*	.0*	.0	.0	3.0	9.0
SSE	.4	.9	.7	.7	.4	.1	.0	.0	.0	.0	3.2	9.3
S	.7	1.9	1.4	.7	.3	.1	.0*	.0	.0	.0	5.2	8.0
SSW	.8	1.5	1.3	.7	.1	.0*	.0	.0	.0	.0	4.3	7.2
SW	.7	2.0	2.1	1.0	.1	.0*	.0*	.0	.0	.0	5.8	7.5
WSW	.8	2.6	3.2	2.4	.4	.1	.0	.0	.0	.0	9.4	8.7
W	1.2	4.1	9.9	10.6	2.1	.3	.0	.0	.0	.0	28.1	10.5
WNW	.7	2.5	4.3	3.6	.5	.2	.0*	.0	.0	.0	11.9	9.7
NW	1.0	2.1	2.6	1.7	.3	.0*	.0	.0	.0	.0	7.7	8.2
NNW	.7	1.6	1.6	1.0	.2	.0*	.0	.0	.0	.0	5.1	8.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.0	.0
ALL	10.7	23.9	29.7	23.8	4.9	1.0	.1	.0*	.0	.0	100.0	8.3

TOTAL NO. OF OBS : 7680

NOTES :  
 \* = PERCENT < .05

023239 : ALAMEDA, CA  
PERIOD OF RECORD: 1955-1986  
CLASS : ALL WEATHER  
CONDITION: NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : APR HOUR : 0100 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)																	
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=1	3/4	>=5/8	1/2	>=5/16	1/4	>=0
UNLIMIT	53.4	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6
>=20000	54.1	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2
>=18000	54.2	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4
>=16000	54.6	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8
>=14000	54.9	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3
>=12000	55.6	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1
>=10000	56.5	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4
>= 9000	56.6	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5
>= 8000	58.1	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4
>= 7000	58.3	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1
>= 6000	58.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7
>= 5000	59.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1
>= 4500	59.9	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4
>= 4000	60.5	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
>= 3500	61.5	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6
>= 3000	62.7	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5
>= 2500	64.2	83.8	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0
>= 2000	66.1	86.9	87.3	87.3	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4
>= 1800	66.3	87.7	88.0	88.1	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2
>= 1500	67.3	89.8	90.1	90.2	90.3	90.3	90.3	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4
>= 1200	68.6	92.0	92.4	92.6	92.8	92.8	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1
>= 1000	69.9	94.6	95.1	95.3	95.5	95.5	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7
>= 900	70.3	95.7	96.1	96.3	96.5	96.5	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7
>= 800	70.3	96.0	96.4	96.6	96.8	96.8	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1
>= 700	70.5	96.6	97.2	97.5	97.7	97.7	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9
>= 600	70.7	97.6	98.2	98.5	98.7	98.7	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
>= 500	70.8	97.8	98.4	98.9	99.2	99.2	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>= 400	70.8	98.0	98.6	99.2	99.4	99.4	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 300	70.8	98.1	98.8	99.4	99.7	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 200	70.8	98.1	98.8	99.4	99.7	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 100	70.8	98.1	98.8	99.4	99.7	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 0	70.8	98.1	98.8	99.4	99.7	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9

TOTAL NO. OF OBS : 950

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : 0400 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1 1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	47.1	62.4	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5
>=20000	47.7	63.7	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8
>=18000	47.9	64.0	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2
>=16000	48.0	64.2	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3
>=14000	48.5	64.7	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8
>=12000	49.2	65.5	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6
>=10000	50.0	66.4	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5
>= 9000	50.1	66.5	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6
>= 8000	50.8	67.4	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5
>= 7000	51.0	68.2	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3
>= 6000	51.6	69.0	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1
>= 5000	52.7	70.3	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4
>= 4500	54.1	72.0	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1
>= 4000	54.4	72.7	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9
>= 3500	54.9	73.7	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8
>= 3000	56.4	75.5	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6
>= 2500	57.4	78.0	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1
>= 2000	60.3	81.9	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0
>= 1800	61.0	83.0	83.1	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2
>= 1500	62.9	86.5	86.7	86.9	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0
>= 1200	64.7	89.7	90.0	90.3	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4
>= 1000	66.4	93.5	94.1	94.3	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4
>= 900	66.9	94.9	95.6	95.8	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9
>= 800	67.2	96.1	96.9	97.1	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2
>= 700	67.4	97.0	97.7	97.9	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0
>= 600	67.5	97.5	98.4	98.6	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7
>= 500	67.6	97.7	98.6	98.8	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
>= 400	67.6	98.0	99.1	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 300	67.6	98.1	99.2	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 200	67.6	98.1	99.2	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 100	67.6	98.1	99.2	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 0	67.6	98.1	99.2	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8

TOTAL NO. OF OBS : 954

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : 0700 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1 1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	37.2	54.4	55.0	55.6	55.7	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8
>=20000	38.6	57.0	57.7	58.4	58.5	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6
>=18000	39.1	57.7	58.5	59.1	59.2	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3
>=16000	39.1	57.7	58.6	59.3	59.4	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6
>=14000	40.0	59.1	60.0	60.7	60.8	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9
>=12000	41.5	60.7	61.6	62.3	62.4	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5
>=10000	42.1	61.9	62.7	63.5	63.6	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7
>= 9000	42.4	62.1	63.0	63.7	63.8	63.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9
>= 8000	43.7	63.9	64.8	65.5	65.6	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7
>= 7000	44.2	64.4	65.3	66.0	66.1	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2
>= 6000	44.5	64.9	65.7	66.5	66.6	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7
>= 5000	45.0	65.5	66.3	67.1	67.2	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3
>= 4500	46.1	66.8	67.6	68.4	68.5	68.6	68.6	68.6	68.6	68.6	68.6	68.6	68.6	68.6	68.6	68.6
>= 4000	46.8	67.6	68.5	69.2	69.3	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4
>= 3500	47.5	68.7	69.6	70.4	70.5	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6
>= 3000	48.7	70.9	71.9	72.7	72.8	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9
>= 2500	50.5	73.7	74.7	75.6	75.7	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8
>= 2000	52.7	77.4	78.8	79.6	79.7	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8
>= 1800	52.9	78.0	79.4	80.3	80.5	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6
>= 1500	54.5	81.8	83.5	84.7	85.0	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1
>= 1200	55.9	85.6	87.4	88.5	89.0	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1
>= 1000	56.9	89.3	91.2	92.6	93.0	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1
>= 900	57.0	90.8	92.9	94.3	94.7	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8
>= 800	57.1	91.6	94.4	95.9	96.3	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4
>= 700	57.1	92.1	95.2	97.7	97.1	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2
>= 600	57.1	92.7	96.1	97.7	98.2	98.4	98.4	98.4	98.4	98.5	98.5	98.5	98.5	98.5	98.5	98.5
>= 500	57.1	93.0	96.7	98.3	98.8	99.0	99.0	99.0	99.0	99.2	99.2	99.2	99.2	99.2	99.2	99.2
>= 400	57.1	93.1	96.8	98.4	99.0	99.3	99.3	99.3	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>= 300	57.1	93.2	96.9	98.6	99.3	99.5	99.6	99.6	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 200	57.1	93.3	97.0	98.7	99.4	99.6	99.7	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 100	57.1	93.3	97.0	98.7	99.4	99.6	99.7	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 0	57.1	93.3	97.0	98.7	99.4	99.6	99.7	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8

TOTAL NO. OF OBS : 942



## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : APR  
HOUR : 1000 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=1	1/2	>=1/2	>=5/8	>=3/4	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	40.3	59.1	61.4	62.7	63.2	63.4	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7
>=20000	43.3	63.0	65.2	66.5	67.0	67.2	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6
>=18000	43.7	63.5	65.7	67.0	67.6	67.8	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1
>=16000	44.1	64.1	66.4	67.7	68.2	68.4	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7
>=14000	44.7	65.0	67.2	68.5	69.0	69.3	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6
>=12000	45.3	66.0	68.2	69.5	70.0	70.2	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5
>=10000	46.3	67.2	69.5	70.7	71.3	71.5	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8
>= 9000	46.5	67.4	69.7	71.0	71.5	71.7	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0
>= 8000	47.6	68.7	71.0	72.2	72.8	73.0	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3
>= 7000	47.7	69.1	71.4	72.7	73.2	73.4	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7
>= 6000	48.0	69.5	71.8	73.1	73.6	73.8	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1
>= 5000	48.7	70.6	73.0	74.3	74.8	75.0	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3
>= 4500	49.6	72.1	74.5	75.7	76.3	76.5	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8
>= 4000	50.4	73.3	75.6	76.9	77.4	77.7	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
>= 3500	51.0	74.0	76.4	77.7	78.2	78.4	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7
>= 3000	52.7	76.1	78.5	79.8	80.3	80.5	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9
>= 2500	55.3	79.9	82.6	83.9	84.6	84.8	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1
>= 2000	57.3	83.9	86.6	88.1	88.7	89.0	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4
>= 1800	57.9	84.7	87.3	88.8	89.5	89.8	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1
>= 1500	58.8	87.3	90.1	91.7	92.4	92.3	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1
>= 1200	60.6	89.8	92.7	94.6	95.5	95.9	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2
>= 1000	60.6	91.0	93.8	95.9	96.9	97.2	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8
>= 900	60.7	91.2	94.0	96.1	97.2	97.6	98.1	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2
>= 800	60.7	91.7	94.6	96.7	97.9	98.2	98.8	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
>= 700	60.7	91.9	94.8	97.0	98.3	98.6	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>= 600	60.7	92.0	94.9	97.2	98.5	98.8	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
>= 500	60.7	92.0	94.9	97.2	98.5	98.8	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
>= 400	60.7	92.0	95.0	97.3	98.6	98.9	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 300	60.7	92.0	95.0	97.3	98.6	98.9	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 200	60.7	92.0	95.0	97.3	98.6	98.9	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 100	60.7	92.0	95.0	97.3	98.6	98.9	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 0	60.7	92.0	95.0	97.3	98.6	98.9	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8

TOTAL NO. OF OBS : 940

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : APR  
HOUR : 1300 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/4	>=1/2	>=5/8	>=3/4	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	51.0	67.8	68.9	69.0	69.1	69.1	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2
>=20000	54.7	73.0	74.0	74.1	74.2	74.2	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4
>=18000	55.0	73.3	74.4	74.5	74.6	74.6	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7
>=16000	55.3	73.6	74.7	74.8	74.9	74.9	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
>=14000	56.3	75.1	76.2	76.4	76.5	76.5	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6
>=12000	56.9	75.9	76.9	77.2	77.3	77.3	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4
>=10000	58.0	77.4	78.4	78.7	78.8	78.8	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9
>= 9000	58.1	77.5	78.6	78.8	78.9	78.9	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0
>= 8000	58.7	78.2	79.3	79.5	79.6	79.6	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7
>= 7000	59.2	78.8	79.8	80.1	80.2	80.2	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3
>= 6000	59.4	79.0	80.2	80.4	80.5	80.5	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6
>= 5000	60.5	80.1	81.3	81.5	81.6	81.6	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7
>= 4500	61.3	81.0	82.3	82.5	82.7	82.7	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
>= 4000	62.0	81.8	83.1	83.3	83.4	83.4	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5
>= 3500	63.5	83.7	85.1	85.3	85.5	85.5	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6
>= 3000	65.2	86.2	87.6	87.8	87.9	87.9	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0
>= 2500	68.0	90.0	91.4	91.6	91.8	91.8	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9
>= 2000	69.5	92.7	94.4	94.6	94.8	94.8	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9
>= 1800	69.8	93.5	95.6	95.8	96.0	96.0	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1
>= 1500	70.6	95.5	97.8	98.2	98.4	98.4	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5
>= 1200	70.8	96.2	98.6	98.9	99.1	99.2	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>= 1000	70.8	96.4	98.9	99.2	99.5	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 900	70.8	96.4	99.0	99.4	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 800	70.8	96.4	99.0	99.4	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 700	70.8	96.4	99.0	99.4	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 600	70.8	96.4	99.0	99.4	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 500	70.8	96.4	99.0	99.4	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 400	70.8	96.4	99.0	99.4	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 300	70.8	96.4	99.0	99.4	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 200	70.8	96.4	99.0	99.4	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 100	70.8	96.4	99.0	99.4	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 0	70.8	96.4	99.0	99.4	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8

TOTAL NO. OF OBS : 928

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=2	>=1	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2
	>=5/16	>=1/4	>=1/8	>=1/16	>=1/32	>=1/64	>=1/128	>=1/256	>=1/512	>=1/1024	>=1/2048	>=1/4096	>=1/8192	>=1/16384	>=1/32768	>=1/65536
UNLIMIT	53.1	71.2	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6
>=20000	56.9	77.2	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5
>=18000	57.2	77.6	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9
>=16000	57.8	78.1	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4
>=14000	59.2	80.0	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3
>=12000	60.0	80.9	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3
>=10000	61.2	82.5	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9
>=9000	61.4	82.8	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1
>=8000	62.7	84.3	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6
>=7000	62.9	84.9	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2
>=6000	63.1	85.2	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6
>=5000	63.6	85.8	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1
>=4500	64.1	86.6	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0
>=4000	64.9	87.7	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1
>=3500	66.1	89.3	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8
>=3000	67.8	91.7	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1
>=2500	69.4	93.9	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4
>=2000	70.5	95.8	96.4	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7
>=1800	70.5	95.9	96.6	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8
>=1500	70.7	97.1	97.8	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2
>=1200	70.8	97.6	98.4	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7
>=1000	70.9	97.8	98.6	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
>=900	70.9	97.8	98.6	99.0	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
>=800	70.9	97.8	98.6	99.1	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>=700	70.9	97.8	98.6	99.1	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>=600	70.9	98.0	98.7	99.2	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
>=500	70.9	98.0	98.7	99.4	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>=400	70.9	98.0	98.7	99.4	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>=300	70.9	98.0	98.7	99.4	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>=200	70.9	98.0	98.7	99.4	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>=100	70.9	98.0	98.7	99.4	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>=0	70.9	98.0	98.7	99.4	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7

TOTAL NO. OF OBS : 928

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : 1900 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16
UNLIMIT	48.3	69.7	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6
>=20000	50.6	73.6	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5
>=18000	51.0	74.4	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2
>=16000	51.4	75.1	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0
>=14000	52.4	76.4	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3
>=12000	53.2	77.6	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4
>=10000	54.5	79.5	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4
>= 9000	54.6	79.7	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6
>= 8000	55.5	81.2	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1
>= 7000	56.2	82.2	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0
>= 6000	56.2	82.2	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0
>= 5000	56.4	83.0	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9
>= 4500	57.0	84.0	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9
>= 4000	57.6	85.2	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1
>= 3500	58.6	86.8	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7
>= 3000	59.7	88.2	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1
>= 2500	60.4	89.4	90.2	90.3	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5
>= 2000	61.5	91.0	92.2	92.4	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5
>= 1800	61.7	91.6	92.8	93.0	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1
>= 1500	62.9	93.8	95.0	95.2	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3
>= 1200	63.2	95.6	96.8	97.0	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1
>= 1000	63.3	96.2	97.4	97.6	97.7	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9
>= 900	63.3	96.4	97.6	98.0	98.1	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2
>= 800	63.4	96.7	98.2	98.6	98.8	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
>= 700	63.5	97.1	98.7	99.2	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 600	63.5	97.2	98.8	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 500	63.5	97.2	98.8	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 400	63.5	97.2	98.8	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 300	63.5	97.2	98.8	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 200	63.5	97.2	98.8	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 100	63.5	97.2	98.8	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 0	63.5	97.2	98.8	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 932

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : 2200 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0	>=0
UNLIMIT	55.6	71.4	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5
>=20000	56.5	73.1	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2
>=18000	56.9	73.8	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9
>=16000	57.1	74.1	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2
>=14000	57.8	75.2	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3
>=12000	59.1	77.0	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1
>=10000	59.9	78.0	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2
>= 9000	59.9	78.0	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2
>= 8000	61.2	79.2	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
>= 7000	61.3	80.5	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6
>= 6000	61.6	81.0	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1
>= 5000	62.1	81.5	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7
>= 4500	62.5	82.2	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3
>= 4000	62.8	82.8	82.9	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0
>= 3500	63.9	84.6	84.7	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8
>= 3000	65.1	85.8	85.9	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0
>= 2500	66.3	87.4	87.5	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6
>= 2000	67.7	89.6	89.7	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9
>= 1800	68.2	90.6	90.7	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0
>= 1500	69.2	92.7	92.8	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3
>= 1200	70.6	95.0	95.1	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8
>= 1000	70.8	96.0	96.1	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7
>= 900	71.3	96.8	96.9	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6
>= 800	71.4	97.0	97.2	97.9	97.9	97.9	97.9	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0
>= 700	71.5	97.6	97.9	98.6	98.6	98.6	98.6	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7
>= 600	71.5	97.9	98.2	98.9	98.9	98.9	98.9	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
>= 500	71.5	98.3	98.6	99.5	99.6	99.6	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 400	71.5	98.4	98.7	99.7	99.8	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 300	71.5	98.4	98.7	99.7	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 200	71.5	98.4	98.7	99.7	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 100	71.5	98.4	98.7	99.7	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 0	71.5	98.4	98.7	99.7	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 943

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : ALL

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	48.2	65.4	66.1	66.3	66.4	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5
>=20000	50.3	68.7	69.3	69.6	69.7	69.7	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8
>=18000	50.6	69.2	69.9	70.1	70.2	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3
>=16000	50.9	69.6	70.3	70.5	70.6	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7
>=14000	51.7	70.7	71.4	71.7	71.7	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8
>=12000	52.6	71.8	72.5	72.8	72.8	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9
>=10000	53.5	73.1	73.8	74.1	74.2	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3
>= 9000	53.7	73.3	74.0	74.2	74.3	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4
>= 8000	54.8	74.7	75.4	75.7	75.8	75.8	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9
>= 7000	55.1	75.4	76.1	76.3	76.4	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5
>= 6000	55.4	75.8	76.5	76.8	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9
>= 5000	56.0	76.6	77.3	77.6	77.7	77.7	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8
>= 4500	56.8	77.7	78.5	78.7	78.8	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9
>= 4000	57.4	78.6	79.4	79.6	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8
>= 3500	58.3	80.0	80.8	81.1	81.2	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3
>= 3000	59.8	81.9	82.7	83.0	83.1	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2
>= 2500	61.4	84.4	85.3	85.7	85.8	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9
>= 2000	63.2	87.4	88.4	88.8	88.9	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0
>= 1800	63.5	88.1	89.1	89.6	89.7	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8
>= 1500	64.6	90.5	91.7	92.3	92.5	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6
>= 1200	65.7	92.7	93.9	94.5	94.8	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9
>= 1000	66.2	94.3	95.6	96.3	96.6	96.7	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8
>= 900	66.4	95.0	96.3	97.0	97.3	97.4	97.5	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6
>= 800	66.5	95.4	96.9	97.6	98.0	98.0	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2
>= 700	66.6	95.8	97.4	98.2	98.5	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
>= 600	66.6	96.2	97.8	98.6	99.0	99.1	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
>= 500	66.6	96.3	98.0	98.9	99.3	99.4	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
>= 400	66.6	96.4	98.1	99.0	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>= 300	66.6	96.4	98.2	99.1	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
>= 200	66.6	96.4	98.2	99.1	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 100	66.6	96.4	98.2	99.1	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 0	66.6	96.4	98.2	99.1	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7

TOTAL NO. OF OBS : 7517

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PE-ICD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : 0100 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)												TOTAL %	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56			
N	1.1	.4	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.4	5.9
NNE	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	3.3
NE	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	3.0
ENE	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	2.8
E	.7	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	3.8
ESE	.6	1.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0	4.4
SE	.7	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	3.2
SSE	.4	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.8	5.3
S	.6	.5	1.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	3.3	7.2
SSW	1.0	1.8	1.9	.6	.0	.0	.0	.0	.0	.0	.0	.0	5.3	6.6
SW	1.1	3.2	4.1	2.5	.2	.0	.0	.0	.0	.0	.0	.0	11.2	8.0
WSW	1.6	3.5	6.0	5.4	.3	.0	.0	.0	.0	.0	.0	.0	14.8	8.3
W	1.7	7.5	12.1	5.7	.8	.0	.0	.0	.0	.0	.0	.0	27.7	8.3
WNW	1.2	2.9	2.8	1.9	.2	.0	.0	.0	.0	.0	.0	.0	9.0	7.8
NW	1.2	2.9	1.1	1.5	.1	.0	.0	.0	.0	.0	.0	.0	7.4	6.8
NNW	.4	.3	.7	.9	.0	.0	.0	.0	.0	.0	.0	.0	2.5	8.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.0	.0
ALL	13.6	25.8	31.2	17.6	1.6	.0	.0	.0	.0	.0	.0	.0	100.0	6.8

TOTAL NO. OF OBS : 691

NOTES : \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : 0400 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 DIR.	1	2	3	4	5	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	TOTAL		MEAN WIND SPEED
																%	%	
N	1.6																	5.1
NNE	.7			.9			.3	.5	.0	.0	.0	.0	.0	.0	.0	3.3	1.2	4.3
NE	.7		.4				.0	.1	.0	.0	.0	.0	.0	.0	.0	.7	.7	3.3
ENE	.2		.4				.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.4	3.5
E	1.6		1.0				.1	.1	.0	.0	.0	.0	.0	.0	.0	2.8	2.8	3.8
ESE	.6		2.0				.3	.0	.0	.0	.0	.0	.0	.0	.0	2.9	2.9	4.5
SE	.4		1.1				.3	.1	.0	.0	.0	.0	.0	.0	.0	1.9	1.9	5.3
SSE	.4		.0				.4	.1	.0	.0	.0	.0	.0	.0	.0	.9	.9	6.3
S	1.0		1.4				2.2	.7	.0	.1	.0	.0	.0	.0	.0	5.4	5.4	7.3
SSW	.7		2.3				2.1	.7	.0	.0	.0	.0	.0	.0	.0	5.6	5.6	7.1
SW	1.7		2.8				3.3	1.5	.0	.0	.0	.0	.0	.0	.0	9.4	9.4	7.0
WSW	.6		3.8				6.4	2.2	.2	.0	.0	.0	.0	.0	.0	13.4	13.4	9.0
W	2.1		5.6				9.6	5.0	.6	.0	.0	.0	.0	.0	.0	23.0	23.0	8.4
WNW	1.7		3.3				2.0	1.3	.1	.0	.0	.0	.0	.0	.0	8.1	8.1	6.9
NW	1.5		1.5				1.0	1.3	.6	.0	.0	.0	.0	.0	.0	5.9	5.9	8.2
NNW	.4		.6				.4	.8	.0	.0	.0	.0	.0	.0	.0	2.2	2.2	8.1
VAR	.0		.0				.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0		.0				.0	.0	.0	.0	.0	.0	.0	.0	.0	12.7	12.7	.0
ALL	15.2		27.5				28.4	14.5	1.5	.1	.0	.0	.0	.0	.0	100.0	100.0	6.3

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT < .05



# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : 0700 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	SPEED (KNOTS)										TOTAL %	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	
N	1.1	1.8	1.9	.6	.0	.0	.0	.0	.0	.0	.0	6.6
NNE	.4	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	4.4
NE	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.5
ENE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.0
E	.1	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	4.5
ESE	.7	1.1	.5	.0	.0	.0	.0	.0	.0	.0	.0	4.8
SE	1.4	1.8	.9	.6	.1	.0	.0	.0	.0	.0	.0	5.8
SSE	.0	1.4	.7	.3	.0	.0	.0	.0	.0	.0	.0	5.6
S	2.0	3.4	1.3	.7	.1	.0	.0	.0	.0	.0	.0	5.7
SSW	1.4	2.7	1.8	.3	.0	.0	.0	.0	.0	.0	.0	5.6
SW	2.3	3.2	2.6	1.4	.0	.0	.0	.0	.0	.0	.0	6.7
WSW	1.1	3.9	3.6	1.6	.0	.0	.0	.0	.0	.0	.0	7.0
W	2.9	6.7	7.3	3.2	.1	.0	.0	.0	.0	.0	.0	7.2
WNW	.8	1.5	2.6	1.1	.0	.0	.0	.0	.0	.0	.0	7.5
NW	1.1	1.9	.9	1.0	.0	.0	.0	.0	.0	.0	.0	6.5
NNW	.4	.9	.8	.9	.0	.0	.0	.0	.0	.0	.0	8.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ALL	16.7	31.4	25.3	11.8	.3	.0	.0	.0	.0	.0	.0	5.6

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : 1000 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	1	2	3	4	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	TOTAL %	MEAN SPEED
N	.2	.6	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	7.6
NNE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.0
ESE	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	3.5
SE	.9	1.2	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.7	5.2
SSE	.6	3.1	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.1	5.8
S	3.2	8.2	1.5	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.6	5.1
SSW	2.4	3.9	2.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.0	5.5
SW	2.1	2.7	3.8	1.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.7	7.0
WSW	1.6	5.6	5.4	2.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14.9	7.1
W	2.4	6.1	8.5	5.6	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	23.2	8.2
WNW	1.0	1.9	2.9	1.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.6	7.9
NW	.5	1.9	2.6	.8	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.9	7.6
NNW	.3	1.2	.9	.5	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	3.0	8.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2	.0
ALL	15.6	36.7	30.4	13.7	1.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	100.0	6.8

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : 1300 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	SPEED (KNOTS)										TOTAL %	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55		
N	.0	.3	.2	.1	.2	.0	.0	.0	.0	.0	.8	10.8
NNE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	5.0
ENE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	6.0
E	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2	9.5
ESE	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	9.0
SE	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2	9.0
SSE	.1	.3	.0	.1	.0	.0	.0	.0	.0	.0	.5	6.0
S	.0	.3	.3	.4	.1	.0	.0	.0	.0	.0	1.1	10.3
SSW	.1	.9	.7	.8	.3	.1	.0	.0	.0	.0	2.9	10.3
SW	.2	1.0	3.1	2.2	.1	.1	.0	.0	.0	.0	6.6	10.1
WSW	.1	2.3	6.9	6.7	.5	.0	.0	.0	.0	.0	16.4	10.3
W	.3	3.2	16.6	23.6	4.9	1.1	.1	.0	.0	.0	49.9	12.0
WNW	.4	.9	5.4	5.4	.8	.3	.0	.0	.0	.0	13.3	11.1
NW	.1	1.4	2.5	1.4	.0	.1	.0	.0	.0	.0	5.5	8.8
NNW	.0	1.0	.6	.3	.1	.1	.0	.0	.0	.0	2.1	8.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0
ALL	1.1	11.9	36.9	41.0	7.1	1.8	.1	.0	.0	.0	100.0	11.1

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : 1600 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.		1	3	4	6	7-10	11-16	17-21	SPEED (KNOTS)				TOTAL %				MEAN WIND SPEED
									22-27	28-33	34-40	41-47	48-55	>=56			
N		.0		.1		.1	.1	.1	.1	.0	.0	.0	.0	.0	.5	13.4	
NNE		.0		.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
NE		.0		.1		.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	4.0	
ENE		.0		.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
E		.0		.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
ESE		.0		.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
SE		.0		.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
SSE		.0		.0		.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	7.0	
S		.1		.0		.3	.3	.1	.0	.0	.0	.0	.0	.0	.8	11.4	
SSW		.1		.0		.3	.6	.2	.1	.0	.0	.0	.0	.0	1.3	12.8	
SW		.0		.5		1.7	1.2	.1	.0	.0	.0	.0	.0	.0	3.5	9.9	
WSW		.1		.3		2.5	5.8	1.3	.0	.0	.0	.0	.0	.0	10.1	12.6	
W		.0		1.2		12.3	37.2	10.7	3.0	.1	.0	.0	.0	.0	64.5	13.8	
WNW		.0		.6		3.2	8.7	2.4	.7	.1	.0	.0	.0	.0	15.7	13.2	
NW		.0		.2		1.6	.7	.1	.1	.0	.0	.0	.0	.0	2.7	10.6	
NNW		.0		.1		.3	.2	.0	.0	.0	.0	.0	.0	.0	.6	9.2	
VAR		.0		.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CLM		.0		.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
ALL		.3		3.1		22.5	54.8	15.0	4.0	.2	.0	.0	.0	.0	100.0	13.3	

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : 1900 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

15 PT. DIR.	SPEED (KNOTS)										TOTAL	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	
N	.2	.5	.3	.1	.0	.0	.0	.0	.0	.0	1.1	6.4
NNE	.1	.1	.2	.1	.0	.0	.0	.0	.0	.0	.5	7.6
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	12.5
S	.0	.0	.2	.3	.0	.0	.0	.0	.0	.0	.5	12.2
SSW	.1	.3	.4	.4	.1	.0	.0	.0	.0	.0	1.3	8.2
SW	.0	.9	2.0	1.2	.3	.0	.0	.0	.0	.0	4.4	9.8
WSW	.4	1.9	4.6	4.6	.5	.1	.0	.0	.0	.0	12.2	9.9
W	.5	4.0	18.0	28.0	6.1	.7	.1	.0	.0	.0	57.6	12.0
WNW	.5	2.5	5.3	5.0	.9	.5	.0	.0	.0	.0	14.8	10.3
NW	.6	1.9	1.5	.9	.2	.0	.0	.0	.0	.0	5.1	7.9
NWW	.2	1.1	.2	.2	.1	.0	.0	.0	.0	.0	1.8	6.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0
ALL	2.6	13.3	32.5	41.1	8.3	1.3	.1	.0	.0	.0	100.0	10.9

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : 2200 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	SPEED (KNOTS)										>=56	TOTAL	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55			
N	.3	1.0	.2	.3	.0	.0	.0	.0	.0	.0	.0	1.8	6.1
NNE	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	2.7
NE	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	4.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.1	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.5	4.6
ESE	.1	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.5	5.2
SE	.3	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.7	4.6
SSE	.0	.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.4	9.0
S	.2	.7	.5	.3	.1	.0	.0	.0	.0	.0	.0	1.8	7.7
SSW	.5	1.1	1.5	.1	.0	.0	.0	.0	.0	.0	.0	3.2	6.8
SW	1.2	4.0	4.1	2.6	.2	.0	.0	.0	.0	.0	.0	12.2	7.8
WSW	1.7	6.7	9.8	2.8	.4	.0	.0	.0	.0	.0	.0	20.4	7.7
W	2.6	7.6	14.0	10.7	1.2	.2	.0	.0	.0	.0	.0	36.3	9.1
WNW	.7	2.4	4.5	1.9	.8	.0	.0	.0	.0	.0	.0	10.4	8.9
NW	1.2	1.6	1.3	1.2	.0	.0	.0	.0	.0	.0	.0	5.3	7.1
NNW	.5	.4	.7	.5	.1	.0	.0	.0	.0	.0	.0	2.2	8.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.4	.0
ALL	10.0	26.7	36.4	20.5	2.8	.2	.0	.0	.0	.0	.0	100.0	7.9

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : ALL

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

16 PT. DIR.		1	2	3	4	5	6	7-10	11-16	17-21	SPEED (KNOTS)					28-33	34-40	41-47	48-55	>56	TOTAL %	MEAN WIND SPEED
N		.6	.7			.5		.3		.0*		.0*		.0		.0		.0		.0	2.1	6.7
NNE		.2	.1			.1		.0*		.0		.0		.0		.0		.0		.0	.4	4.4
NE		.1	.1			.0		.0		.0		.0		.0		.0		.0		.0	.2	3.8
ENE		.1	.1			.0		.0		.0		.0		.0		.0		.0		.0	.1	3.5
E		.3	.3			.1		.0*		.0		.0		.0		.0		.0		.0	.7	4.3
ESE		.3	.6			.2		.0		.0		.0		.0		.0		.0		.0	1.0	4.6
SE		.5	.6			.3		.1		.0*		.0		.0		.0		.0		.0	1.4	5.3
SSE		.3	.6			.4		.1		.0*		.0		.0		.0		.0		.0	1.4	6.0
S		.9	1.8			1.0		.5		.1		.0*		.0		.0		.0		.0	4.3	6.3
SSW		.8	1.6			1.4		.5		.1		.0*		.0		.0		.0		.0	4.4	6.9
SW		1.1	2.3			3.1		1.8		.1		.0*		.0		.0		.0		.0	8.4	7.9
WSW		.9	3.5			5.5		3.7		.4		.0*		.0		.0		.0		.0	14.1	8.7
W		1.6	5.2			12.3		14.9		3.1		.7		.0*		.0		.0		.0	37.8	10.8
WNW		.7	2.0			3.6		3.4		.7		.2		.0*		.0		.0		.0	10.6	9.8
NW		.9	1.7			1.6		1.1		.1		.0*		.0		.0		.0		.0	5.4	7.7
NNW		.3	.7			.6		.5		.0*		.0*		.0		.0		.0		.0	2.2	8.1
VAR		.0	.0			.0		.0		.0		.0		.0		.0		.0		.0	.0	.0
CLM		.0	.0			.0		.0		.0		.0		.0		.0		.0		.0	5.4	.0
ALL		9.4	22.1			30.5		26.9		4.7		1.0		.1		.0		.0		.0	100.0	8.6

TOTAL NO. OF OBS : 7935

NOTES : \* = PERCENT < .05

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : MAY  
HOUR : 0100 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1 1/4	>=1
UNLIMIT	47.0	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4
>=20000	48.0	63.9	64.0	64.0	64.0	64.0	64.0	64.0	64.0	62.4
>=18000	48.1	64.0	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.0
>=16000	48.1	64.0	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1
>=14000	48.6	64.8	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.1
>=12000	48.9	65.2	65.3	65.3	65.3	65.3	65.3	65.3	65.3	64.9
>=10000	49.3	65.7	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.3
>=9000	49.6	66.2	66.3	66.3	66.3	66.3	66.3	66.3	66.3	65.9
>=8000	50.4	67.2	67.3	67.3	67.3	67.3	67.3	67.3	67.3	66.3
>=7000	51.0	68.0	68.1	68.1	68.1	68.1	68.1	68.1	68.1	66.3
>=6000	51.1	68.1	68.2	68.2	68.2	68.2	68.2	68.2	68.2	67.3
>=5000	51.3	68.3	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.1
>=4500	51.7	68.7	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.4
>=4000	52.0	69.0	69.1	69.1	69.1	69.1	69.1	69.1	69.1	68.8
>=3500	52.3	69.5	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.1
>=3000	52.9	70.3	70.4	70.4	70.4	70.4	70.4	70.4	70.4	69.6
>=2500	53.7	71.3	71.4	71.4	71.4	71.4	71.4	71.4	71.4	70.4
>=2000	55.9	74.7	74.8	74.8	74.8	74.8	74.8	74.8	74.8	71.4
>=1800	56.4	75.2	75.3	75.3	75.3	75.3	75.3	75.3	75.3	71.4
>=1500	59.2	79.2	79.3	79.3	79.4	79.4	79.4	79.4	79.4	74.8
>=1200	62.1	84.1	84.2	84.2	84.3	84.3	84.3	84.3	84.3	75.3
>=1000	63.8	88.2	88.3	88.3	88.4	88.4	88.4	88.4	88.4	79.4
>=900	64.4	89.7	89.8	89.8	89.9	89.9	89.9	89.9	89.9	84.3
>=800	65.3	91.6	91.7	91.8	91.9	91.9	91.9	91.9	91.9	88.4
>=700	65.7	93.3	93.5	93.7	93.8	93.8	93.8	93.8	93.8	89.9
>=600	66.4	96.0	96.3	96.5	96.6	96.6	96.6	96.6	96.6	89.9
>=500	66.9	97.3	97.8	98.0	98.1	98.1	98.1	98.1	98.1	91.9
>=400	66.9	98.3	98.7	99.2	99.3	99.3	99.3	99.3	99.3	93.8
>=300	66.9	98.5	98.9	99.4	99.6	99.6	99.6	99.6	99.6	96.6
>=200	66.9	98.6	99.2	99.7	99.9	99.9	100.0	100.0	100.0	98.1
>=100	66.9	98.6	99.2	99.7	99.9	99.9	100.0	100.0	100.0	98.1
>=0	66.9	98.6	99.2	99.7	99.9	99.9	100.0	100.0	100.0	99.3

TOTAL NO. OF OBS : 981



## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : MAY  
HOUR : 0400 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/4	>=1
UNLIMIT	39.3	53.7	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9
>=20000	40.1	55.0	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2
>=18000	40.2	55.1	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3
>=16000	40.4	55.3	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5
>=14000	40.9	55.9	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1
>=12000	41.4	56.5	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7
>=10000	41.8	57.1	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
>= 9000	42.0	57.4	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6
>= 8000	42.6	58.4	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6
>= 7000	42.8	58.7	58.9	58.9	58.9	58.9	58.9	58.9	58.9	58.9
>= 6000	43.0	58.9	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1
>= 5000	43.2	59.2	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5
>= 4500	43.7	59.8	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
>= 4000	43.9	60.2	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4
>= 3500	44.6	60.9	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1
>= 3000	45.5	62.1	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3
>= 2500	47.1	63.8	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0
>= 2000	49.0	67.4	67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.7
>= 1800	50.8	68.8	69.1	69.1	69.2	69.2	69.2	69.2	69.2	69.2
>= 1500	54.0	73.5	73.8	73.8	73.9	73.9	73.9	73.9	73.9	73.9
>= 1200	57.9	79.5	79.8	79.9	80.0	80.0	80.0	80.0	80.0	80.0
>= 1000	60.5	84.9	85.2	85.3	85.5	85.5	85.5	85.5	85.5	85.5
>= 900	61.7	87.6	87.9	88.0	88.2	88.2	88.2	88.2	88.2	88.2
>= 800	62.4	90.0	90.3	90.4	90.7	90.7	90.7	90.7	90.7	90.7
>= 700	63.2	92.1	92.4	92.7	92.9	92.9	92.9	92.9	92.9	92.9
>= 600	63.4	94.4	94.9	95.3	95.5	95.5	95.5	95.5	95.5	95.5
>= 500	63.6	96.0	96.7	97.3	97.5	97.6	97.6	97.6	97.6	97.6
>= 400	63.7	97.4	98.3	98.6	99.0	99.1	99.1	99.1	99.1	99.1
>= 300	63.7	97.7	98.7	99.3	99.5	99.6	99.6	99.6	99.6	99.6
>= 200	63.7	97.7	98.7	99.5	99.7	99.8	99.8	99.8	99.8	99.8
>= 100	63.7	97.7	98.7	99.5	99.7	99.8	99.8	99.9	100.0	100.0
>= 0	63.7	97.7	98.7	99.5	99.7	99.8	99.9	99.9	100.0	100.0

TOTAL NO. OF OBS : 984

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : 0700 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	33.4	48.9	49.7	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
>=20000	34.0	50.5	51.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3
>=18000	34.2	50.8	51.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6
>=16000	34.4	51.0	51.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8
>=14000	34.8	51.4	52.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2
>=12000	35.8	52.5	53.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3
>=10000	36.2	53.4	54.2	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3
>= 9000	36.5	53.7	54.5	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6
>= 8000	36.9	54.6	55.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5
>= 7000	37.2	55.1	55.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9
>= 6000	37.3	55.2	56.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
>= 5000	37.6	55.6	56.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4
>= 4500	37.8	55.8	56.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6
>= 4000	37.8	56.0	56.8	57.8	57.8	57.8	57.8	57.8	57.8	57.8	57.8	57.8	57.8	57.8	57.8	57.8
>= 3500	38.3	56.6	57.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4
>= 3000	38.7	57.4	58.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2
>= 2500	39.7	59.0	60.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0
>= 2000	42.5	62.8	63.8	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9
>= 1800	43.4	64.1	65.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3
>= 1500	45.1	69.4	70.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7
>= 1200	49.0	76.7	78.3	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6
>= 1000	50.8	81.9	83.7	85.0	85.3	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4
>= 900	51.1	84.1	86.2	87.5	87.8	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9
>= 800	51.4	86.2	88.6	89.9	90.3	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4
>= 700	51.7	89.4	91.0	92.4	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8
>= 600	51.7	90.3	93.4	94.9	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4
>= 500	51.9	91.3	95.0	96.8	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3
>= 400	52.0	91.8	96.1	98.3	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8
>= 300	52.0	92.1	96.5	98.6	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>= 200	52.0	92.1	96.5	98.8	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>= 100	52.0	92.1	96.5	98.8	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>= 0	52.0	92.1	96.6	98.9	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5

TOTAL NO. OF OBS : 979

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : MAY  
HOUR : 1000 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=2	>=1	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2
UNLIMIT	40.9	62.5	64.0	64.4	65.1	65.5	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6
>=20000	43.0	66.0	67.5	67.9	68.6	69.0	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1
>=18000	43.1	66.1	67.6	68.0	68.7	69.1	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2
>=16000	43.1	66.2	67.7	68.1	68.8	69.2	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3
>=14000	43.7	66.9	68.5	68.9	69.5	69.9	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
>=12000	44.1	67.4	69.0	69.4	70.0	70.4	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5
>=10000	44.9	68.7	70.2	70.6	71.2	71.6	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8
>= 9000	45.1	68.8	70.3	70.7	71.3	71.7	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9
>= 8000	45.7	69.6	71.1	71.5	72.2	72.6	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7
>= 7000	45.7	69.7	71.2	71.6	72.3	72.7	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8
>= 6000	45.8	69.8	71.3	71.8	72.4	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9
>= 5000	46.3	70.4	72.0	72.4	73.0	73.4	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5
>= 4500	46.6	70.7	72.3	72.7	73.3	73.7	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8
>= 4000	46.8	71.1	72.7	73.1	73.7	74.1	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2
>= 3500	47.5	71.9	73.4	73.8	74.4	74.8	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9
>= 3000	48.8	73.5	75.2	75.6	76.2	76.6	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7
>= 2500	49.9	75.5	77.1	77.5	78.1	78.6	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7
>= 2000	52.8	79.8	81.6	82.1	82.7	83.1	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2
>= 1800	53.4	80.9	82.8	83.2	83.8	84.2	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3
>= 1500	55.5	85.7	87.6	88.1	88.9	89.3	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4
>= 1200	56.5	89.0	91.0	91.8	92.5	92.9	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0
>= 1000	57.0	92.2	94.3	95.1	95.8	96.2	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3
>= 900	57.0	93.0	95.4	96.1	96.8	97.2	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3
>= 800	57.0	93.5	96.1	96.8	97.6	98.0	98.1	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2
>= 700	57.0	94.2	96.9	97.6	98.6	99.0	99.1	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
>= 600	57.1	94.8	97.5	98.2	99.2	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 500	57.1	94.9	97.7	98.5	99.4	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 400	57.1	94.9	97.7	98.5	99.4	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 300	57.1	94.9	97.7	98.5	99.4	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 200	57.1	94.9	97.7	98.5	99.4	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 100	57.1	94.9	97.7	98.5	99.4	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 0	57.1	94.9	97.7	98.5	99.4	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 970

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : MAY  
HOUR : 1300 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	>=3/4	>=5/8
UNLIMIT	55.8	76.3	76.9	76.9	77.0	77.0	77.0	77.0	77.0	77.0
>=20000	57.9	79.5	80.1	80.1	80.2	80.2	80.2	80.2	80.2	80.2
>=18000	58.2	79.8	80.5	80.5	80.6	80.6	80.6	80.6	80.6	80.6
>=16000	58.4	80.0	80.7	80.7	80.8	80.8	80.8	80.8	80.8	80.8
>=14000	58.9	81.0	81.6	81.6	81.7	81.7	81.7	81.7	81.7	81.7
>=12000	59.4	81.5	82.1	82.1	82.2	82.2	82.2	82.2	82.2	82.2
>=10000	59.9	82.1	82.7	82.7	82.8	82.8	82.8	82.8	82.8	82.8
>=9000	60.1	82.3	82.9	82.9	83.0	83.0	83.0	83.0	83.0	83.0
>=8000	60.5	82.9	83.6	83.6	83.7	83.7	83.7	83.7	83.7	83.7
>=7000	60.7	83.1	83.8	83.8	83.9	83.9	83.9	83.9	83.9	83.9
>=6000	61.0	83.5	84.1	84.1	84.2	84.2	84.2	84.2	84.2	84.2
>=5000	61.5	84.1	84.7	84.7	84.8	84.8	84.8	84.8	84.8	84.8
>=4500	61.8	84.4	85.0	85.0	85.1	85.1	85.1	85.1	85.1	85.1
>=4000	62.6	85.3	85.9	85.9	86.0	86.0	86.0	86.0	86.0	86.0
>=3500	62.9	85.7	86.3	86.3	86.5	86.5	86.5	86.5	86.5	86.5
>=3000	63.9	87.2	87.8	87.9	88.0	88.0	88.0	88.0	88.0	88.0
>=2500	65.4	89.7	90.3	90.5	90.6	90.6	90.6	90.6	90.6	90.6
>=2000	67.4	93.0	93.6	93.6	93.9	93.9	93.9	93.9	93.9	93.9
>=1800	67.9	93.8	94.5	94.7	94.8	94.8	94.8	94.8	94.8	94.8
>=1500	68.5	95.3	96.2	96.4	96.5	96.5	96.5	96.6	96.6	96.6
>=1200	69.4	97.3	98.1	98.3	98.4	98.4	98.4	98.6	98.6	98.6
>=1000	69.6	97.8	98.8	99.0	99.2	99.2	99.2	99.3	99.3	99.3
>=900	69.6	98.0	99.0	99.2	99.4	99.4	99.4	99.6	99.6	99.6
>=800	69.6	98.1	99.1	99.4	99.6	99.6	99.6	99.8	99.8	99.8
>=700	69.6	98.2	99.2	99.5	99.8	99.8	99.8	100.0	100.0	100.0
>=600	69.6	98.2	99.2	99.5	99.8	99.8	99.8	100.0	100.0	100.0
>=500	69.6	98.2	99.2	99.5	99.8	99.8	99.8	100.0	100.0	100.0
>=400	69.6	98.2	99.2	99.5	99.8	99.8	99.8	100.0	100.0	100.0
>=300	69.6	98.2	99.2	99.5	99.8	99.8	99.8	100.0	100.0	100.0
>=200	69.6	98.2	99.2	99.5	99.8	99.8	99.8	100.0	100.0	100.0
>=100	69.6	98.2	99.2	99.5	99.8	99.8	99.8	100.0	100.0	100.0
>=0	69.6	98.2	99.2	99.5	99.8	99.8	99.8	100.0	100.0	100.0

TOTAL NO. OF OBS : 967

# 2 - CEILING VS VISIBILITY

023339 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : 1600 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16
UNLIMIT	56.6	79.6	79.8	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1
>=20000	59.2	83.6	83.8	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1
>=18000	59.5	84.1	84.4	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7
>=16000	59.9	84.6	84.8	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1
>=14000	60.7	85.6	85.8	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1
>=12000	61.3	86.2	86.4	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7
>=10000	62.1	87.2	87.4	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7
>= 9000	62.2	87.3	87.5	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8
>= 8000	63.1	88.6	88.8	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1
>= 7000	63.3	89.2	89.4	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7
>= 6000	63.4	89.3	89.5	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8
>= 5000	63.4	89.3	89.5	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8
>= 4500	63.5	89.4	89.7	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1
>= 4000	63.6	89.6	89.9	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3
>= 3500	63.7	89.9	90.3	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6
>= 3000	64.2	90.7	91.0	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
>= 2500	65.4	92.2	92.5	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8
>= 2000	66.5	94.0	94.3	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6
>= 1800	66.7	94.6	95.0	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3
>= 1500	67.0	96.3	96.7	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0
>= 1200	67.2	97.4	97.9	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3
>= 1000	67.7	98.3	98.9	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
>= 900	67.7	98.5	99.1	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>= 800	67.7	98.7	99.2	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
>= 700	67.7	98.9	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 600	67.7	98.9	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 500	67.7	98.9	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 400	67.7	98.9	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 300	67.7	98.9	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 200	67.7	98.9	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 100	67.7	98.9	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 0	67.7	98.9	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8

TOTAL NO. OF OBS : 965

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : 1900 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)																
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=2	>=1	1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	47.4	73.0	74.0	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2
>=20000	49.2	76.9	77.9	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1
>=18000	49.4	77.4	78.4	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6
>=16000	49.9	78.0	79.0	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3
>=14000	50.9	79.4	80.4	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6
>=12000	51.6	80.0	81.0	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2
>=10000	52.4	81.1	82.2	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4
>= 9000	52.6	81.3	82.4	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6
>= 8000	53.0	82.1	83.1	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3
>= 7000	53.1	82.5	83.5	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8
>= 6000	53.1	82.6	83.6	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9
>= 5000	53.2	82.7	83.7	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0
>= 4500	53.3	82.9	83.9	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2
>= 4000	53.4	83.2	84.2	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5
>= 3500	53.6	83.8	84.9	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2
>= 3000	54.4	85.0	86.0	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3
>= 2500	54.9	85.6	86.6	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9
>= 2000	55.7	86.5	87.6	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0
>= 1800	56.5	87.8	88.8	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2
>= 1500	57.2	89.6	90.9	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4
>= 1200	57.6	91.3	92.6	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3
>= 1000	58.1	92.9	94.3	95.1	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2
>= 900	58.6	93.9	95.2	96.1	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2
>= 800	59.0	95.1	96.7	97.7	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8
>= 700	59.1	95.7	97.4	98.5	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7
>= 600	59.1	96.4	98.2	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
>= 500	59.1	96.4	98.3	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 400	59.1	96.4	98.3	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 300	59.1	96.4	98.3	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 200	59.1	96.4	98.3	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 100	59.1	96.4	98.3	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 0	59.1	96.4	98.3	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9

TOTAL NO. OF OBS : 964

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : MAY  
HOUR : 2200 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1 1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	53.3	68.7	68.7	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8
>=10000	54.3	70.5	70.5	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6
>=18000	54.6	70.9	70.9	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0
>=16000	55.1	71.5	71.5	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6
>=14000	55.9	72.3	72.3	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4
>=12000	56.5	73.1	73.1	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2
>=10000	57.3	74.2	74.2	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3
>= 9000	57.6	74.6	74.6	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7
>= 8000	58.2	75.3	75.3	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4
>= 7000	58.8	76.0	76.0	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1
>= 6000	59.0	76.2	76.2	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4
>= 5000	59.2	76.6	76.6	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7
>= 4500	59.5	76.9	76.9	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0
>= 4000	59.6	77.1	77.1	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2
>= 3500	59.8	77.3	77.3	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4
>= 3000	60.3	78.0	78.0	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1
>= 2500	60.8	78.4	78.4	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5
>= 2000	61.8	79.6	79.6	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9
>= 1300	62.2	80.4	80.4	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
>= 1500	64.1	83.8	83.9	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0
>= 1200	65.4	86.5	86.6	86.7	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9
>= 1000	66.9	90.7	90.9	91.0	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1
>= 900	66.8	91.8	92.0	92.3	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4
>= 800	67.7	94.1	94.4	94.6	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7
>= 700	68.1	96.1	96.4	96.8	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9
>= 600	68.1	97.3	97.9	98.4	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5
>= 500	68.2	98.2	98.7	99.2	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
>= 400	68.2	98.8	99.3	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 300	68.2	98.9	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 200	68.2	98.9	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 100	68.2	98.9	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 0	68.2	98.9	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 981

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : MAY  
HOUR : ALL

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>6	>5	>4	>3	>2	1/2	>=1	1/4	>=1	>3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	46.7	65.6	66.1	66.4	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5
>=20000	48.2	68.2	68.7	69.0	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1
>=18000	48.4	68.5	69.0	69.3	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4
>=16000	48.6	68.7	69.3	69.6	69.7	69.7	69.7	69.7	69.7	69.7	69.7	69.7	69.7	69.7	69.7	69.7
>=14000	49.3	69.6	70.1	70.4	70.5	70.5	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6
>=12000	49.8	70.2	70.8	71.1	71.1	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2
>=10000	50.4	71.1	71.7	71.9	72.0	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1
>=9000	50.7	71.4	71.9	72.2	72.3	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4
>=8000	51.3	72.3	72.8	73.1	73.2	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3
>=7000	51.5	72.7	73.3	73.6	73.6	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7
>=6000	51.7	72.9	73.4	73.7	73.8	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9
>=5000	51.9	73.2	73.8	74.0	74.1	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2
>=4500	52.2	73.5	74.1	74.3	74.4	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5
>=4000	52.4	73.9	74.4	74.7	74.8	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9
>=3500	52.8	74.4	75.0	75.2	75.3	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4
>=3000	53.6	75.4	76.0	76.3	76.4	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5
>=2500	54.6	76.9	77.5	77.8	77.8	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9
>=2000	56.5	79.7	80.3	80.6	80.7	80.8	80.8	80.8	80.8	80.8	80.8	80.8	80.8	80.8	80.8	80.8
>=1800	57.1	80.6	81.3	81.6	81.7	81.8	81.8	81.8	81.8	81.8	81.8	81.8	81.8	81.8	81.8	81.8
>=1500	58.9	84.0	84.8	85.1	85.3	85.3	85.3	85.3	85.3	85.4	85.4	85.4	85.4	85.4	85.4	85.4
>=1200	60.6	87.7	88.5	89.0	89.1	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2
>=1000	61.8	90.8	91.7	92.2	92.4	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5
>=900	62.1	92.1	93.0	93.5	93.7	93.8	93.8	93.8	93.8	93.9	93.9	93.9	93.9	93.9	93.9	93.9
>=800	62.5	93.4	94.5	95.0	95.3	95.3	95.3	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4
>=700	62.8	94.6	95.8	96.4	96.6	96.7	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8
>=600	62.9	95.8	97.1	97.8	98.0	98.1	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2
>=500	63.0	96.4	97.8	98.6	98.9	98.9	99.0	99.0	99.0	99.1	99.1	99.1	99.1	99.1	99.1	99.1
>=400	63.0	96.8	98.4	99.2	99.5	99.5	99.6	99.6	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>=300	63.0	96.9	98.5	99.3	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=200	63.0	97.0	98.5	99.4	99.7	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=100	63.0	97.0	98.5	99.4	99.7	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=0	63.0	97.0	98.6	99.4	99.8	99.8	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 7791



# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : 0100 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

SPEED (KNOTS)																TOTAL	MEAN
16 PT.	1	3	4	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>50	%	WIND	SPEED	
DIR.																	
N	.6	.8	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.6	4.1		
NNE	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	3.0		
NE	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	4.0		
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
E	.0	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	5.6		
ESE	.0	1.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.5	4.4		
SE	.3	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	4.0		
SSE	.2	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	5.2		
S	.9	.7	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.3	5.0		
SSW	.6	1.6	1.8	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.4	6.9		
SW	1.2	3.4	5.6	1.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.1	7.6		
WSW	2.4	4.7	9.1	4.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	20.5	8.0		
W	2.4	7.3	14.9	8.1	1.2	.3	.0	.0	.0	.0	.0	.0	.0	34.3	9.0		
WNW	1.8	2.5	2.4	1.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	7.9	6.9		
NW	1.5	1.6	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.6	4.2		
NNW	.4	.9	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	5.0		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.8	.0		
ALL	13.6	25.9	35.7	16.1	1.5	.3	.0	.0	.0	.0	.0	.0	.0	100.0	7.1		

TOTAL NO. OF OBS : 960

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : 0400 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

16 PT.		SPEED (KNOTS)																TOTAL		MEAN	
1	1	3	4	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	%							
DIR.	1	3	4	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	%							
N	1.4		1.1		.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.6	3.5					
NNE	.5		.5		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	3.4					
NE	.3		.1		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	3.5					
ENE	.2		.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	2.5					
E	.7		.7		.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	4.1					
ESE	.7		1.4		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	3.6					
SE	.2		.4		.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.7	6.3					
SSE	.3		.7		.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	4.8					
S	.8		1.5		1.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	3.6	6.1					
SSW	.9		1.8		1.9	.5	.0	.0	.0	.0	.0	.0	.0	.0	5.1	6.6					
SW	.8		2.7		3.9	1.5	.0	.0	.0	.0	.0	.0	.0	.0	8.9	7.5					
WSW	1.5		3.9		9.1	3.3	.0	.0	.0	.0	.0	.0	.0	.0	17.7	8.1					
W	2.6		8.3		11.9	7.8	.3	.0	.0	.0	.0	.0	.0	.0	30.9	8.3					
WNW	1.7		2.6		3.2	.9	.0	.0	.0	.0	.0	.0	.0	.0	8.4	6.6					
NW	1.7		1.0		.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.2	4.0					
NNW	.7		.7		.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	1.8	5.2					
VAR	.0		.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0					
CLM	.0		.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.3	.0					
ALL	15.1		27.5		32.2	14.4	.5	.0	.0	.0	.0	.0	.0	.0	100.0	6.4					

TOTAL NO. OF OBS : 960

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : 0700 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.		1	- 3	4	- 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL %	MEAN WIND SPEED
SPEED (KNOTS)																
N	1.2	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2	3.5
NNE	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	4.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	2.5
ESE	.8	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6	4.7
SE	.6	2.0	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.2	5.2
SSE	1.4	1.5	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.4	4.6
S	2.7	2.4	1.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.8	4.9
SSW	1.8	2.0	1.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.4	5.4
SW	1.7	4.1	3.9	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.6	6.7
WSW	2.1	5.0	5.3	2.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14.9	7.1
W	1.8	7.7	11.9	4.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	25.7	7.9
WNW	.9	1.8	2.2	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.4	6.7
NW	.4	2.4	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.4	5.1
NNW	1.4	1.7	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.5	5.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.0	.0
ALL	17.2	32.0	28.1	9.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	5.6

TOTAL NO. OF OBS : 960

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : 1000 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

16 PT.		SPEED (KNOTS)																TOTAL		MEAN	
DIR.		1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	%	SPEED		WIND					
N		.1	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	5.9						
NNE		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0						
NE		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0						
ENE		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0						
E		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0						
ESE		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0						
SE	.4	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	3.9						
SSE	1.1	2.0	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.5	4.9						
S	3.2	4.4	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.4	4.4						
SSW	1.8	3.6	1.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.1	5.2						
SW	2.0	4.4	4.1	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.7	6.5						
WSW	2.8	6.3	7.1	3.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	19.7	7.3						
W	2.6	6.6	11.5	7.1	.9	.0	.0	.0	.0	.0	.0	.0	.0	28.6	8.6						
WNW	1.1	2.0	3.1	1.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	7.4	7.2						
NW	.3	3.0	2.3	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.1	6.7						
NNW	.3	1.8	.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.1	6.9						
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0						
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2	.0						
ALL	15.8	35.2	31.1	14.5	1.1	.0	.0	.0	.0	.0	.0	.0	.0	100.0	6.8						

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONIH : JUN  
 HOUR : 1300 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.		1	2	3	4	-	6	7-10	11-16	17-21	SPEED (KNOTS)					TOTAL %					MEAN	
DIR.		1	2	3	4	-	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56						SPEED
N		.0	.2					.2	.0	.0	.0	.0	.0	.0	.0	.0	.4		7.0			
NNE		.0	.0					.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0			
NE		.0	.0					.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0			
ENE		.0	.0					.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0			
E		.0	.0					.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0			
ESE		.0	.0					.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0			
SE		.0	.0					.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0			
SSE		.0	.1					.1	.0	.0	.1	.0	.0	.0	.0	.0	.3		12.3			
S		.1	.5					.2	.1	.0	.0	.0	.0	.0	.0	.0	.9		6.6			
SSW		.1	.5					.5	.1	.0	.0	.0	.0	.0	.0	.0	1.2		6.7			
SW		.1	1.1					2.2	2.7	.2	.0	.0	.0	.0	.0	.0	6.4		9.9			
WSW		.1	1.5					6.3	8.1	.7	.1	.0	.0	.0	.0	.0	16.8		11.1			
W		.1	3.4					16.4	25.6	4.3	1.4	.1	.0	.0	.0	.0	51.2		11.9			
WNW		.1	2.5					6.5	4.9	.3	.2	.0	.0	.0	.0	.0	14.5		10.0			
NW		.2	1.5					3.1	1.2	.0	.0	.0	.0	.0	.0	.0	6.0		8.3			
NNW		.0	1.0					.8	.2	.1	.0	.0	.0	.0	.0	.0	2.2		7.6			
VAR		.0	.0					.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0			
CLM		.0	.0					.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0			
ALL		.8	12.4					36.1	43.1	5.6	1.8	.1	.0	.0	.0	.0	100.0		10.9			

TOTAL NO. OF OBS : 960

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : 1600 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										TOTAL %	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55		
N	.0	.2	.2	.1	.0	.0	.0	.0	.0	.0	.5	7.8
NNE	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	17.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	8.0
SSE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	6.0
S	.0	.1	.0	.2	.1	.0	.0	.0	.0	.0	.4	11.8
SSW	.0	.2	.2	.2	.0	.0	.0	.0	.0	.0	.6	9.2
SW	.0	.5	.8	1.1	.3	.0	.0	.0	.0	.0	2.8	11.1
WSW	.1	.6	3.4	7.2	.9	.3	.0	.0	.0	.0	12.6	12.2
W	.0	1.2	12.9	37.9	9.6	2.0	.0	.0	.0	.0	63.6	13.6
WNW	.0	.7	6.0	7.3	.8	.2	.0	.0	.0	.0	15.1	11.2
NW	.0	.8	2.3	.4	.0	.0	.0	.0	.0	.0	3.5	8.4
NNW	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.4	7.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ALL	.1	4.8	26.2	54.5	11.9	2.5	.0	.0	.0	.0	100.0	12.7

TOTAL NO. OF OBS : 960

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : 1900 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL	MEAN
												%	WIND SPEED
N	.3	.9	.1	.1	.1	.0	.0	.0	.0	.0	.0	1.6	6.1
NNE	.3	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	4.5
NE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	4.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	3.0
S	.1	.3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.5	6.4
SSW	.0	.3	.1	.0	.1	.0	.0	.0	.0	.0	.0	.5	8.4
SW	.3	.6	2.0	1.1	.4	.0	.0	.0	.0	.0	.0	4.5	9.5
WSW	.2	2.6	4.6	5.5	1.1	.0	.0	.0	.0	.0	.0	14.1	10.5
W	.4	4.1	17.1	31.1	6.9	.6	.0	.0	.0	.0	.0	60.2	12.1
WNW	.0	1.6	5.3	2.9	.6	.0	.0	.0	.0	.0	.0	12.4	10.3
NW	.4	1.6	1.4	.2	.0	.0	.0	.0	.0	.0	.0	3.5	6.4
NNW	.3	1.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	1.9	5.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	.0
ALL	2.5	13.9	30.8	42.1	9.3	.6	.0	.0	.0	.0	.0	100.0	10.9

TOTAL NO. OF OBS : 960

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : 2200 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	SPEED (KNOTS)										>=50	TOTAL %	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55			
N	.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.6	3.7
NNE	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	3.0
NE	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	3.5
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.1	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	4.3
ESE	.1	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.4	7.3
SE	.1	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.4	4.8
SSE	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	3.4
S	.5	.8	.2	.0	.1	.0	.0	.0	.0	.0	.0	1.7	5.6
SSW	.4	1.6	.7	.3	.0	.0	.0	.0	.0	.0	.0	3.0	6.1
SW	2.0	3.7	3.7	2.0	.1	.1	.0	.0	.0	.0	.0	11.7	7.1
WSW	2.0	5.9	8.4	4.7	.3	.1	.0	.0	.0	.0	.0	21.5	8.1
W	2.7	7.8	16.0	13.5	1.4	.2	.0	.0	.0	.0	.0	41.7	9.5
WNW	.9	2.8	3.9	1.5	.3	.0	.0	.0	.0	.0	.0	9.4	7.9
NW	.4	1.1	.4	.3	.0	.0	.0	.0	.0	.0	.0	2.3	6.3
NNW	.5	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.0	4.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.3	.0
ALL	10.9	25.9	33.9	22.4	2.2	.4	.0	.0	.0	.0	.0	100.0	7.9

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT < .05



# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : ALL

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIRECTION		SPEED (KNOTS)											TOTAL %	MEAN WIND SPEED		
1	2	3	4	5	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56		
N	.5		.6	.1	.0*		.0*	.0*	.0	.0	.0	.0	.0	.0	1.3	4.5
NNE	.2		.2	.0	.0		.0	.0*	.0	.0	.0	.0	.0	.0	.4	4.1
NE	.1		.1	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.1	3.6
ENE	.0*		.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0*	2.5
E	.1		.2	.1	.0		.0	.0	.0	.0	.0	.0	.0	.0	.4	4.2
ESE	.3		.4	.1	.0*		.0	.0	.0	.0	.0	.0	.0	.0	.8	4.4
SE	.2		.4	.1	.0*		.0	.0*	.0	.0	.0	.0	.0	.0	.8	5.0
SSE	.4		.6	.1	.1		.1	.0	.0*	.0	.0	.0	.0	.0	1.2	4.9
S	1.1		1.3	.5	.1		.1	.0*	.0	.0	.0	.0	.0	.0	3.1	5.2
SSW	.7		1.4	1.0	.3		.3	.0*	.0	.0	.0	.0	.0	.0	3.4	6.1
SW	1.0		2.6	3.3	1.6		1.6	.1	.3*	.0	.0	.0	.0	.0	8.6	7.7
WSW	1.4		3.8	6.7	4.9		6.7	.4	.1	.0	.0	.0	.0	.0	17.2	8.8
W	1.6		5.8	14.1	16.9		14.1	3.1	.6	.0*	.0	.0	.0	.0	42.0	10.7
WNW	.8		2.1	4.1	2.6		4.1	.3	.1	.0	.0	.0	.0	.0	9.9	8.9
NW	.6		1.6	1.4	.4		1.4	.0	.0	.0	.0	.0	.0	.0	4.0	6.4
NNW	.5		1.0	.3	.1		.3	.0*	.0	.0	.0	.0	.0	.0	2.0	5.8
VAR	.0		.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0		.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	4.7	.0
ALL	9.5		22.2	31.8	27.0		27.0	4.1	.7	.0*	.0	.0	.0	.0	100.0	8.5

TOTAL NO. OF OBS : 7680

NOTES :  
 \* = PERCENT < .05

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : 0100 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1 1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	44.2	58.4	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7
>=20000	44.5	59.1	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4
>=18000	44.6	59.2	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5
>=16000	44.6	59.2	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5
>=14000	45.2	59.9	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2
>=12000	45.4	60.2	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5
>=10000	45.7	60.4	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7
>=9000	45.7	60.4	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7
>=8000	45.9	60.7	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0
>=7000	46.2	61.0	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4
>=6000	46.3	61.2	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5
>=5000	46.3	61.2	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5
>=4500	46.3	61.2	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5
>=4000	46.4	61.3	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6
>=3500	46.6	61.5	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8
>=3000	47.0	61.9	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2
>=2500	47.6	62.6	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9
>=2000	48.9	64.4	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7
>=1800	49.1	65.0	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3
>=1500	51.3	68.8	69.1	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2
>=1200	54.1	74.3	74.7	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8
>=1000	57.0	79.3	79.7	79.8	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9
>=900	58.6	82.0	82.4	82.6	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7
>=800	60.1	85.8	86.3	86.5	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6
>=700	61.0	89.2	89.7	90.1	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2
>=600	61.6	92.5	93.1	93.4	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5
>=500	62.1	95.0	96.0	96.3	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4
>=400	62.8	96.4	97.6	98.4	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5
>=300	62.8	97.3	98.7	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>=200	62.8	97.5	99.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=100	62.8	97.5	99.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=0	62.8	97.5	99.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 955

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : 0400 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	39.3	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9
>=20000	39.7	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1
>=18000	39.9	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5
>=16000	39.9	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5
>=14000	40.3	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
>=12000	40.4	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5
>=10000	40.6	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7
>= 9000	40.6	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7
>= 8000	41.0	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1
>= 7000	41.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2
>= 6000	41.3	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5
>= 5000	41.3	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5
>= 4500	41.4	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6
>= 4000	41.4	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6
>= 3500	41.6	54.8	54.8	54.8	54.8	54.8	54.8	54.8	54.8	54.8	54.8	54.8	54.8	54.8
>= 3000	42.1	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4
>= 2500	42.3	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8
>= 2000	43.2	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4
>= 1800	43.7	58.3	58.4	58.5	58.5	58.5	58.5	58.5	58.5	58.5	58.5	58.5	58.5	58.5
>= 1500	46.3	62.6	62.8	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9
>= 1200	49.3	68.0	68.3	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4
>= 1000	53.5	76.9	77.2	77.3	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4
>= 900	55.5	80.7	81.2	81.3	81.4	81.4	81.4	81.4	81.4	81.4	81.4	81.4	81.4	81.4
>= 800	57.4	85.0	85.5	85.7	85.8	85.8	85.8	85.8	85.8	85.8	85.8	85.8	85.8	85.8
>= 700	58.1	88.0	88.5	88.7	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9
>= 600	59.2	91.4	92.0	92.7	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9
>= 500	59.5	93.5	94.5	95.1	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3
>= 400	59.7	95.9	97.1	97.9	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4
>= 300	59.8	96.8	98.1	99.0	99.5	99.5	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6
>= 200	59.8	96.9	98.2	99.1	99.7	99.7	99.7	99.9	100.0	100.0	100.0	100.0	100.0	100.0
>= 100	59.8	96.9	98.2	99.1	99.7	99.7	99.7	99.9	100.0	100.0	100.0	100.0	100.0	100.0
>= 0	59.8	96.9	98.2	99.1	99.7	99.7	99.7	99.9	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 955

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : 0700 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	31.2	45.3	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9
>=20000	31.6	46.3	47.0	47.0	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1
>=18000	31.6	46.3	47.0	47.0	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1
>=16000	31.6	46.4	47.1	47.1	47.2	47.2	47.2	47.2	47.2	47.2	47.2	47.2	47.2	47.2
>=14000	32.0	47.1	47.7	47.7	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8
>=12000	32.6	48.0	48.6	48.6	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7
>=10000	33.0	48.4	49.1	49.1	49.2	49.2	49.2	49.2	49.2	49.2	49.2	49.2	49.2	49.2
>=9000	33.1	48.5	49.2	49.2	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3
>=8000	33.1	48.7	49.4	49.4	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5
>=7000	33.3	49.2	49.8	49.8	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.9
>=6000	33.4	49.4	50.0	50.0	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1
>=5000	33.4	49.4	50.0	50.0	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1
>=4500	33.5	49.6	50.2	50.2	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3
>=4000	33.5	49.7	50.3	50.3	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4
>=3500	33.5	49.8	50.4	50.4	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5
>=3000	33.7	50.0	50.6	50.6	50.7	50.7	50.7	50.7	50.7	50.7	50.7	50.7	50.7	50.7
>=2500	34.1	50.6	51.4	51.4	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5
>=2000	35.7	53.4	54.1	54.1	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2
>=1800	37.0	55.0	55.9	55.9	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0
>=1500	39.9	60.0	61.0	61.0	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1
>=1200	42.5	66.6	67.8	67.8	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9
>=1000	45.7	74.7	76.4	76.4	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5
>=900	46.6	78.2	79.9	79.9	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
>=800	47.5	82.7	84.7	85.1	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3
>=700	48.2	85.6	87.8	88.8	89.2	89.2	89.2	89.2	89.3	89.3	89.3	89.3	89.3	89.3
>=600	48.6	88.2	91.3	92.6	93.1	93.1	93.1	93.2	93.2	93.2	93.2	93.2	93.2	93.2
>=500	48.7	89.9	94.0	95.7	96.2	96.2	96.2	96.3	96.3	96.3	96.3	96.3	96.3	96.3
>=400	48.8	91.4	95.9	97.9	98.5	98.6	98.6	98.7	98.7	98.7	98.7	98.7	98.7	98.7
>=300	48.8	91.7	96.2	98.6	99.6	99.7	99.7	99.8	99.9	99.9	99.9	99.9	99.9	99.9
>=200	48.9	91.8	96.3	98.7	99.7	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=100	48.9	91.8	96.3	98.7	99.7	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=0	48.9	91.8	96.3	98.7	99.7	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 952

# 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : 1000 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

### VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	37.8	60.7	62.4	63.0	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3
>=20000	38.5	62.1	63.9	64.5	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8
>=18000	38.5	62.1	63.9	64.5	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8
>=16000	38.6	62.3	64.1	64.7	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
>=14000	38.9	62.8	64.6	65.1	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4
>=12000	39.1	63.3	65.4	65.9	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2
>=10000	39.6	63.7	65.8	66.4	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7
>= 9000	39.7	63.8	65.9	66.5	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8
>= 8000	39.7	63.9	66.0	66.6	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9
>= 7000	39.9	64.1	66.2	66.8	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1
>= 6000	40.0	64.2	66.4	66.9	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2
>= 5000	40.0	64.2	66.4	66.9	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2
>= 4500	40.2	64.5	66.6	67.1	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4
>= 4000	40.3	64.6	66.7	67.2	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5
>= 3500	40.5	64.9	67.0	67.5	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8
>= 3000	41.0	65.5	67.6	68.1	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5
>= 2500	41.9	66.7	68.8	69.3	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6
>= 2000	43.9	70.0	72.2	72.7	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0
>= 1800	45.1	72.0	74.2	74.7	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
>= 1500	48.2	78.3	80.5	81.0	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3
>= 1200	50.6	83.5	85.9	86.5	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9
>= 1000	52.5	89.2	91.8	92.4	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0
>= 900	52.5	91.2	94.0	94.7	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4
>= 800	53.2	93.8	96.5	97.4	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0
>= 700	53.5	95.0	97.9	98.8	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>= 600	53.5	95.1	98.0	98.9	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
>= 500	53.5	95.4	98.3	99.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 400	53.5	95.4	98.3	99.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 300	53.5	95.4	98.3	99.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 200	53.5	95.4	98.3	99.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 100	53.5	95.4	98.3	99.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 0	53.5	95.4	98.3	99.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 948

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JUN  
HOUR : 1300 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	58.7	81.4	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9
>=20000	59.7	83.7	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4
>=18000	60.0	84.2	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8
>=16000	60.2	84.4	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
>=14000	60.6	85.0	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6
>=12000	61.5	86.1	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7
>=10000	62.2	87.3	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0
>= 9000	62.3	87.4	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1
>= 8000	62.3	87.5	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2
>= 7000	62.3	87.6	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3
>= 6000	62.4	87.8	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4
>= 5000	62.5	87.9	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5
>= 4500	62.5	87.9	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5
>= 4000	62.8	88.2	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8
>= 3500	62.8	88.2	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8
>= 3000	63.1	88.6	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2
>= 2500	63.9	89.8	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4
>= 2000	65.5	91.7	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5
>= 1800	66.0	92.3	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1
>= 1500	67.3	94.8	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7
>= 1200	68.0	96.4	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3
>= 1000	68.4	98.2	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
>= 900	68.5	98.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
>= 800	68.5	98.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 700	68.5	98.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 600	68.5	98.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 500	68.5	98.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 400	68.5	98.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 300	68.5	98.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 200	68.5	98.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 100	68.5	98.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 0	68.5	98.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8

TOTAL NO. OF OBS : 947

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)																			
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=2	>=1	1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0			
UNLIMIT	59.6	83.4	83.6	83.7	83.7	83.7	83.7	83.7	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8			
>=20000	61.0	86.6	86.8	86.9	86.9	86.9	86.9	86.9	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0			
>=18000	61.2	86.9	87.1	87.2	87.2	87.2	87.2	87.2	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3			
>=16000	61.3	87.0	87.2	87.3	87.3	87.3	87.3	87.3	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4			
>=14000	61.8	87.6	87.9	88.0	88.0	88.0	88.0	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1			
>=12000	62.1	88.2	88.4	88.5	88.5	88.5	88.5	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6			
>=10000	63.2	89.4	89.6	89.7	89.7	89.7	89.7	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8			
>=9000	63.5	89.7	89.9	90.0	90.0	90.0	90.0	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1			
>=8000	63.9	90.3	90.5	90.7	90.7	90.7	90.7	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8			
>=7000	63.9	90.3	90.5	90.7	90.7	90.7	90.7	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8			
>=6000	64.0	90.4	90.7	90.8	90.8	90.8	90.8	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9			
>=5000	64.1	90.5	90.8	90.9	90.9	90.9	90.9	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0			
>=4500	64.1	90.5	90.8	90.9	90.9	90.9	90.9	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0			
>=4000	64.3	90.8	91.0	91.1	91.1	91.1	91.1	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2			
>=3500	64.4	91.0	91.2	91.3	91.3	91.3	91.3	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4			
>=3000	64.7	91.2	91.5	91.6	91.6	91.6	91.6	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7			
>=2500	65.1	91.8	92.3	92.4	92.4	92.4	92.4	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5			
>=2000	65.7	92.6	93.0	93.1	93.1	93.1	93.1	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2			
>=1800	65.8	92.9	93.3	93.4	93.4	93.4	93.4	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6			
>=1500	66.7	94.6	95.2	95.3	95.3	95.3	95.3	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4			
>=1200	67.3	96.6	97.1	97.2	97.3	97.3	97.3	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4			
>=1000	67.6	98.1	98.6	98.7	98.8	98.8	98.8	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9			
>=900	67.9	98.6	99.1	99.2	99.5	99.5	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6			
>=800	67.9	98.8	99.4	99.5	99.7	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8			
>=700	67.9	98.8	99.4	99.5	99.7	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8			
>=600	67.9	98.8	99.5	99.6	99.8	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9			
>=500	67.9	98.8	99.5	99.6	99.8	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9			
>=400	67.9	98.8	99.5	99.6	99.8	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9			
>=300	67.9	98.8	99.5	99.6	99.8	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9			
>=200	67.9	98.8	99.5	99.6	99.8	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9			
>=100	67.9	98.8	99.5	99.6	99.8	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9			
>=0	67.9	98.8	99.5	99.6	99.8	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9			

TOTAL NO. OF OBS : 931

# 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : 1900 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1 1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	49.0	73.7	74.6	75.1	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5
>=20000	49.9	77.4	78.2	78.7	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2
>=18000	49.9	77.5	78.3	78.8	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3
>=16000	50.2	77.8	78.6	79.2	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6
>=14000	51.3	79.3	80.1	80.7	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1
>=12000	51.6	79.8	80.7	81.2	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6
>=10000	51.8	80.2	81.1	81.6	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1
>=9000	51.9	80.3	81.2	81.7	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2
>=8000	52.4	80.9	81.7	82.3	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7
>=7000	52.5	81.3	82.2	82.7	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1
>=6000	52.5	81.4	82.3	82.8	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2
>=5000	52.6	81.5	82.4	82.9	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3
>=4500	52.6	81.6	82.5	83.0	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4
>=4000	52.6	81.6	82.5	83.0	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4
>=3500	52.7	81.7	82.6	83.1	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5
>=3000	52.8	82.1	83.0	83.5	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0
>=2500	53.2	82.5	83.4	84.0	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4
>=2000	53.5	82.9	83.9	84.4	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8
>=1800	53.5	83.2	84.2	84.7	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1
>=1500	54.2	85.3	86.3	86.9	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3
>=1200	55.4	87.7	88.9	89.5	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0
>=1000	56.5	90.4	91.8	92.5	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1
>=900	57.1	91.6	93.1	93.8	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3
>=800	57.5	93.6	95.1	95.9	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5
>=700	57.7	95.1	96.7	97.5	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1
>=600	57.8	96.0	97.6	98.6	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1
>=500	57.8	96.5	98.2	99.1	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=400	57.8	96.6	98.3	99.3	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=300	57.8	96.6	98.3	99.3	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=200	57.8	96.6	98.3	99.3	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=100	57.8	96.6	98.3	99.3	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=0	57.8	96.6	98.3	99.3	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9

TOTAL NO. OF OBS : 936



## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JUN  
HOUR : 2200 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	49.7	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9
>=20000	50.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3
>=18000	50.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4
>=16000	50.6	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7
>=14000	51.1	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5
>=12000	51.3	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0
>=10000	51.5	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3
>= 9000	51.5	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3
>= 8000	51.2	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7
>= 7000	52.1	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0
>= 6000	52.1	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0
>= 5000	52.4	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2
>= 4500	52.5	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4
>= 4000	52.5	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4
>= 3500	52.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6
>= 3000	52.6	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7
>= 2500	52.9	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0
>= 2000	53.4	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9
>= 1800	53.7	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5
>= 1500	55.4	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
>= 1200	57.8	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9
>= 1000	60.2	86.3	86.3	86.3	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4
>= 900	60.7	88.2	88.3	88.3	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4
>= 800	61.4	90.9	91.0	91.0	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1
>= 700	62.1	92.7	92.9	92.9	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1
>= 600	62.6	94.8	95.1	95.2	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4
>= 500	63.0	96.9	97.4	97.5	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7
>= 400	63.1	98.1	98.9	99.0	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
>= 300	63.1	98.7	99.6	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 200	63.1	98.7	99.6	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 100	63.1	98.7	99.6	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 0	63.1	98.7	99.6	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 957

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : ALL

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16
UNLIMIT	46.1	65.2	65.8	65.9	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0
>=20000	46.8	67.1	67.7	67.8	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9
>=18000	47.0	67.3	67.8	68.0	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1
>=16000	47.1	67.4	68.0	68.1	68.2	68.2	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3
>=14000	47.6	68.2	68.7	68.9	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0
>=12000	47.9	68.8	69.4	69.5	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6
>=10000	48.4	69.3	69.9	70.1	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2
>= 9000	48.5	69.4	70.0	70.2	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3
>= 8000	48.7	69.8	70.4	70.5	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6
>= 7000	48.9	70.0	70.6	70.8	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9
>= 6000	48.9	70.1	70.7	70.9	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0
>= 5000	49.0	70.2	70.8	70.9	71.0	71.0	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1
>= 4500	49.1	70.3	70.9	71.0	71.1	71.1	71.1	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2
>= 4000	49.2	70.4	71.0	71.1	71.2	71.2	71.2	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3
>= 3500	49.3	70.6	71.2	71.3	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4
>= 3000	49.6	70.9	71.6	71.7	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8
>= 2500	50.1	71.6	72.3	72.4	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5
>= 2000	51.2	73.3	74.0	74.1	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3
>= 1800	51.7	74.2	74.9	75.1	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2
>= 1500	53.6	77.7	78.5	78.7	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8
>= 1200	55.6	81.8	82.6	82.8	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0
>= 1000	57.7	86.6	87.5	87.7	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0
>= 900	58.4	88.6	89.6	89.9	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1
>= 800	59.2	91.1	92.2	92.6	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8
>= 700	59.6	92.9	94.1	94.5	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8
>= 600	59.9	94.4	95.8	96.3	96.6	96.6	96.6	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7
>= 500	60.1	95.6	97.2	97.8	98.1	98.1	98.1	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2
>= 400	60.3	96.4	98.2	98.9	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
>= 300	60.3	96.8	98.6	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 200	60.3	96.8	98.6	99.4	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 100	60.3	96.8	98.6	99.4	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 0	60.3	96.8	98.6	99.4	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9

TOTAL NO. OF OBS : 7581

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL  
 HOUR : 0100 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										TOTAL %	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	
N	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.4	2.5
NNE	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.3	3.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	6.0
ESE	.1	.6	.1	.0	.1	.0	.0	.0	.0	.0	.9	6.9
SE	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.3	4.7
SSE	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	5.0
S	.5	.5	.6	.0	.0	.0	.0	.0	.0	.0	1.6	5.3
SSW	.6	.6	1.7	.3	.1	.0	.0	.0	.0	.0	3.3	7.2
SW	1.1	2.9	6.9	2.8	.1	.0	.0	.0	.0	.0	13.8	8.4
WSW	.9	6.1	10.8	5.7	.1	.0	.0	.0	.0	.0	23.7	8.5
W	2.4	8.4	14.6	6.1	.5	.0	.0	.0	.0	.0	34.0	8.4
WNW	1.6	4.6	3.6	.2	.0	.0	.0	.0	.0	.0	10.1	5.9
NW	1.5	2.0	.5	.0	.0	.0	.0	.0	.0	.0	4.0	4.3
NNW	.8	.9	.1	.0	.0	.0	.0	.0	.0	.0	1.8	3.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.4	.0
ALL	10.1	27.5	38.9	17.1	.9	.0	.0	.0	.0	.0	100.0	7.3

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL  
 HOUR : 0400 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	1	3	4	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL %	MEAN WIND SPEED
N	1.0	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	3.4
NNE	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	2.5
NE	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	3.0
ENE	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	7.0
E	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	3.2
ESE	.5	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	3.9
SE	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	4.0
SSE	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	5.5
S	.1	.3	.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3	7.2
SSW	.5	1.6	1.8	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.0	6.5
SW	1.1	4.1	7.6	1.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	14.5	7.6
WSW	1.4	5.6	9.5	4.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	21.1	8.1
W	3.0	9.1	13.9	6.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	32.4	7.8
WNW	2.1	4.1	1.9	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.7	5.5
NW	1.1	2.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.5	4.1
NNW	1.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6	2.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.3	.0
ALL	13.1	29.4	35.8	13.0	.3	.1	.0	.0	.0	.0	.0	.0	.0	100.0	6.5

TOTAL NO. OF OBS : 992

NOTES :  
 # = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL  
 HOUR : 0700 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT.		SPEED (KNOTS)																TOTAL %		MEAN WIND SPEED	
DIR.	L	1 - 3	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	L	1	2	3	4	5			
N		.9	.4		.0	.0	.0	.0	.0	.0	.0	.0		.0	.0	1.7	4.0				
NNE		.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0	.2	3.0				
NE		.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0	.1	6.0				
ENE		.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0	.1	4.0				
E		.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0	.1	6.0				
ESE		.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0	.4	3.8				
SE		.3	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0	.9	4.8				
SSE		.5	.9	.3	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0	1.7	5.0				
S		1.3	1.3	1.0	.1	.1	.0	.0	.0	.0	.0	.0		.0	.0	3.8	5.6				
SSW		1.4	2.1	2.2	.5	.0	.0	.0	.0	.0	.0	.0		.0	.0	6.3	6.2				
SW		1.5	5.1	5.7	1.0	.0	.0	.0	.0	.0	.0	.0		.0	.0	13.4	6.8				
WSW		1.8	4.5	7.8	2.4	.2	.0	.0	.0	.0	.0	.0		.0	.0	16.7	7.5				
W		3.2	10.3	10.0	5.0	.0	.0	.0	.0	.0	.0	.0		.0	.0	26.5	7.3				
WNW		1.0	4.2	2.3	.1	.0	.0	.0	.0	.0	.0	.0		.0	.0	7.7	5.4				
NW		2.0	.6	.5	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0	3.1	3.7				
NNW		1.9	1.1	.2	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0	3.2	3.5				
VAR		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0				
CLM		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0	12.0	.0				
ALL		16.2	31.8	30.5	9.2	.3	.0	.0	.0	.0	.0	.0		.0	.0	100.0	5.7				

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL  
 HOUR : 1000 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.		SPEED (KNOTS)																TOTAL	MEAN		
		1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56									
N		.4	.8	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3	4.4			
NNE		.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	2.5			
NE		.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	4.0			
ENE		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
E		.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	3.0			
ESE		.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	4.0			
SE		.2	.9	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	4.4			
SSE		.3	.9	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6	5.2			
S		2.1	1.3	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.1	4.2			
SSW		1.6	2.0	.8	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.6	5.1			
SW		2.0	4.7	5.3	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.0	6.4			
WSW		3.3	7.5	8.9	3.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	23.2	7.2			
W		3.1	11.1	11.5	6.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	32.0	7.7			
WNW		.9	3.0	3.4	.7	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.2	6.9			
NW		.5	2.0	2.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.2	6.5			
NNW		.5	1.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2	5.1			
VAR		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
CLM		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.8	.0			
ALL		15.3	35.8	34.0	11.8	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	6.6			

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL  
 HOUR : 1300 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	SPEED (KNOTS)										TOTAL %	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55		
N	.0	.1	.2	.0	.0	.0	.0	.0	.0	.0	.3	8.0
NNE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	4.0
SE	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	2.0
SSE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
S	.2	.0	.0	.1	.0	.0	.0	.0	.0	.0	.3	6.0
SSW	.0	.1	.5	.2	.0	.0	.0	.0	.0	.0	.8	9.0
SW	.0	.7	3.6	2.1	.1	.0	.0	.0	.0	.0	6.6	9.9
WSW	.2	1.2	7.3	5.3	.0	.2	.0	.0	.0	.0	14.2	10.2
W	.3	4.6	19.3	21.3	2.0	.1	.0	.0	.0	.0	47.6	10.6
WNW	.1	2.9	9.6	5.9	.4	.0	.0	.0	.0	.0	19.0	9.7
NW	.0	2.4	5.7	1.1	.1	.0	.0	.0	.0	.0	9.4	8.5
NNW	.1	.2	1.1	.2	.0	.0	.0	.0	.0	.0	1.6	7.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0
ALL	1.0	12.4	47.3	36.3	2.6	.3	.0	.0	.0	.0	100.0	10.0

TOTAL NO. OF OBS : 992

NOTES : # = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL  
 HOUR : 1600 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIP.	1	3	4	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	TOTAL %	MEAN WIND SPEED
N	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	8.0
NNE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	5.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
S	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	12.0
SSW	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	9.5
SW	.0	.5	1.4	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	3.0	10.2
WSW	.0	1.4	3.5	.7	5.4	.0	.0	.0	.0	.0	.0	.0	.0	11.2	11.4
W	.1	1.8	16.3	7.3	33.2	.1	.0	.0	.0	.0	.0	.0	.0	59.8	12.6
WNW	.1	.9	7.9	.8	10.1	.0	.0	.0	.0	.0	.0	.0	.0	19.9	11.2
NW	.0	.7	3.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	4.3	8.4
NNW	.1	.3	.6	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.1	7.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ALL	.3	5.9	33.0	8.9	50.7	.1	.0	.0	.0	.0	.0	.0	.0	100.0	11.8

TOTAL NO. OF OBS : 991

NOTES :  
 \* = PERCENT < .05



# 1 - SURFACE WINDS

D23239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL  
 HOUR : 1900 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

		SPEED (KNOTS)											TOTAL		MEAN
16 PT.		1	1 - 3	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	%	SPEED
DIR.															
N	.2	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	5.0
NNE	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	6.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	4.0
S	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	7.0
SSW	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	6.0
SW	.0	1.8	3.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.1	8.4
WSW	.1	2.2	6.2	4.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	13.1	9.7
W	.5	4.9	20.4	25.5	4.1	.3	.0	.0	.0	.0	.0	.0	.0	55.8	11.2
WNW	.4	3.2	8.0	5.9	.6	.1	.0	.0	.0	.0	.0	.0	.0	18.2	9.8
NW	.0	1.7	1.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.7	7.1
NNW	.1	.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	6.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0
ALL	1.4	15.4	40.5	37.1	4.9	.4	.0	.0	.0	.0	.0	.0	.0	100.0	10.2

TOTAL NO. OF OBS : 991

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL  
 HOUR : 2200 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT.		SPEED (KNOTS)																TOTAL		MEAN	
DIR.		1	3	4	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	%	WIND SPEED					
N		.1		.4		.1	.0	.0	.0	.0	.0	.0	.0	.0	.6		4.5				
NNE		.0		.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0				
NE		.2	.1	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.3		3.3				
ENE		.1	.2	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.3		4.3				
E		.0		.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0				
ESE		.1	.0	.0		.2	.0	.0	.0	.0	.0	.0	.0	.0	.3		6.3				
SE		.1	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.1		3.0				
SSE		.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0				
S		.8	.2	.2		.2	.0	.0	.0	.0	.0	.0	.0	.0	1.4		5.1				
SSW		.4	1.1	1.1	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.1		7.2				
SW		1.3	4.0	5.0	1.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	12.1		7.5				
WSW		1.1	6.6	8.4	5.6	.1	.1	.0	.0	.0	.0	.0	.0	.0	21.9		8.4				
W		2.1	8.8	20.7	10.3	.9	.1	.0	.0	.0	.0	.0	.0	.0	42.8		8.9				
WNW		.9	4.0	3.5	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.0		7.2				
NW		.8	1.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.7		4.4				
NNW		.2	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0		4.7				
CLM		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0				
ALL	8.3	27.6	39.7	19.6	1.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	3.3	100.0	7.8				

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL  
 HOUR : ALL

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	TOTAL	MEAN
												%	WIND SPEED
N	.4	.4	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.9	4.3
NNE	.1	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.2	3.5
NE	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	3.6
ENE	.0*	.0*	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.1	4.8
E	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	3.8
ESE	.1	.2	.0*	.0	.0*	.0	.0	.0	.0	.0	.0	.4	5.0
SE	.1	.2	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.4	4.4
SSE	.1	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.5	5.1
S	.6	.5	.4	.1	.0*	.0	.0	.0	.0	.0	.0	1.6	5.3
SSW	.6	1.0	1.1	.2	.0*	.0	.0	.0	.0	.0	.0	2.8	6.4
SW	.9	3.0	4.9	1.5	.1	.0	.0	.0	.0	.0	.0	10.3	7.7
WSW	1.1	4.4	7.8	4.6	.2	.1	.0	.0	.0	.0	.0	18.1	8.6
W	1.9	7.4	15.8	14.4	1.9	.2	.0*	.0	.0	.0	.0	41.6	9.8
WNW	.9	3.4	5.0	3.1	.2	.0*	.0	.0	.0	.0	.0	12.7	8.5
NW	.7	1.7	1.8	.3	.0*	.0	.0	.0	.0	.0	.0	4.5	6.4
NNW	.6	.7	.4	.0*	.0	.0	.0	.0	.0	.0	.0	1.7	4.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.0	.0
ALL	8.2	23.2	37.5	24.3	2.4	.3	.0*	.0	.0	.0	.0	100.0	8.3

TOTAL NO. OF OBS : 7934

NOTES :  
 \* = PERCENT < .05

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL  
 HOUR : 0100 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	33.6	48.9	49.1	49.1	49.1	49.1	49.1	49.1	49.1	49.1	49.1	49.1	49.1	49.1	49.1	49.1
>=20000	33.6	49.1	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3
>=18000	33.7	49.3	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5
>=16000	34.0	49.6	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8
>=14000	34.2	50.2	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4
>=12000	34.4	50.8	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0
>=10000	34.5	51.0	51.2	51.2	51.2	51.2	51.2	51.2	51.2	51.2	51.2	51.2	51.2	51.2	51.2	51.2
>= 9000	34.5	51.0	51.2	51.2	51.2	51.2	51.2	51.2	51.2	51.2	51.2	51.2	51.2	51.2	51.2	51.2
>= 8000	34.6	51.5	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7
>= 7000	34.6	51.6	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8
>= 6000	34.6	51.6	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8
>= 5000	34.7	51.7	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
>= 4500	34.7	51.7	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
>= 4000	34.7	51.7	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
>= 3500	34.7	51.7	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
>= 3000	34.8	51.8	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0
>= 2500	35.1	52.1	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3
>= 2000	35.4	52.4	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6
>= 1800	35.7	53.0	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2
>= 1500	36.5	54.9	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2
>= 1200	38.7	58.4	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6
>= 1000	41.3	64.2	64.5	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6
>= 900	42.3	66.9	67.3	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4
>= 800	44.0	71.3	71.7	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8
>= 700	45.7	75.5	76.1	76.3	76.3	76.3	76.3	76.3	76.3	76.3	76.3	76.3	76.3	76.3	76.3	76.3
>= 600	47.3	82.6	83.7	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1
>= 500	48.5	89.4	90.8	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
>= 400	49.1	94.1	96.8	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5
>= 300	49.3	96.0	98.8	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 200	49.3	96.0	98.9	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 100	49.3	96.0	98.9	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 0	49.3	96.0	98.9	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9

TOTAL NO. OF OBS : 990

# 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL  
 HOUR : 0400 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)														
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	27.1	38.7	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8
>=20000	27.4	39.2	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3
>=18000	27.4	39.3	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4
>=16000	27.6	39.5	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6
>=14000	27.9	40.1	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2
>=12000	28.2	40.4	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5
>=10000	28.3	40.7	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8
>= 9000	28.3	40.7	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8
>= 8000	28.3	40.9	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0
>= 7000	28.4	41.1	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2
>= 6000	28.4	41.1	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2
>= 5000	28.4	41.1	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2
>= 4500	28.4	41.1	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2
>= 4000	28.4	41.1	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2
>= 3500	28.5	41.3	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4
>= 3000	28.5	41.3	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4
>= 2500	28.7	41.6	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7
>= 2000	29.3	42.6	42.7	42.7	42.7	42.7	42.7	42.7	42.7	42.7	42.7	42.7	42.7	42.7	42.7
>= 1800	29.4	42.8	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9
>= 1500	30.8	44.8	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9
>= 1200	33.9	49.8	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.9
>= 1000	37.7	57.2	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
>= 900	38.9	60.7	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9
>= 800	40.9	65.5	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8
>= 700	42.9	71.3	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0
>= 600	44.8	79.7	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2
>= 500	46.3	87.2	89.6	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0
>= 400	47.4	92.5	96.1	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8
>= 300	47.4	94.1	98.3	99.2	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
>= 200	47.4	94.2	98.4	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 100	47.4	94.2	98.4	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 0	47.4	94.2	98.4	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7

TOTAL NO. OF OBS : 988

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA

PERIOD OF RECORD : 1955-1986

CLASS : ALL WEATHER

CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JUL  
HOUR : 0700 LSTPERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	19.8	33.2	33.7	33.7	33.7	33.7	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8
>=20000	20.2	33.7	34.2	34.2	34.2	34.2	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3
>=18000	20.2	33.8	34.3	34.3	34.3	34.3	34.4	34.4	34.4	34.4	34.4	34.4	34.4	34.4	34.4
>=16000	20.4	34.1	34.6	34.6	34.6	34.6	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7
>=14000	20.6	34.8	35.3	35.3	35.3	35.3	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4
>=12000	20.7	35.4	35.9	35.9	35.9	35.9	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0
>=10000	21.0	35.7	36.2	36.2	36.2	36.2	36.3	36.3	36.3	36.3	36.3	36.3	36.3	36.3	36.3
>=9000	21.1	35.9	36.4	36.4	36.4	36.4	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5
>=8000	21.1	36.0	36.5	36.5	36.5	36.5	36.6	36.6	36.6	36.6	36.6	36.6	36.6	36.6	36.6
>=7000	21.1	36.1	36.6	36.6	36.6	36.6	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7
>=6000	21.2	36.3	36.8	36.8	36.8	36.8	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9
>=5000	21.3	36.4	36.9	36.9	36.9	36.9	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0
>=4500	21.3	36.5	37.0	37.0	37.0	37.0	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1
>=4000	21.4	36.6	37.1	37.1	37.1	37.1	37.2	37.2	37.2	37.2	37.2	37.2	37.2	37.2	37.2
>=3500	21.5	36.7	37.2	37.2	37.2	37.2	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3
>=3000	21.6	36.8	37.3	37.3	37.3	37.3	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4
>=2500	21.8	37.2	37.8	37.8	37.8	37.8	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9
>=2000	22.3	38.2	38.7	38.7	38.7	38.7	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8
>=1800	22.5	38.7	39.2	39.2	39.2	39.2	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3
>=1500	23.9	41.2	41.8	41.8	41.8	41.8	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9
>=1200	26.5	46.9	47.5	47.5	47.5	47.5	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6
>=1000	29.3	54.6	55.8	55.8	55.9	55.9	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0
>=900	30.6	59.7	61.2	61.4	61.5	61.5	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6
>=800	31.8	65.0	67.3	67.5	67.6	67.6	67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.7
>=700	32.9	70.6	73.8	74.3	74.5	74.5	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6
>=600	33.6	77.2	82.4	83.7	84.0	84.0	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1
>=500	33.6	81.9	88.5	90.7	91.2	91.5	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8
>=400	33.7	84.2	92.6	95.7	96.5	96.8	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2
>=300	33.7	84.7	93.6	97.3	98.5	99.3	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>=200	33.7	84.7	93.8	97.7	98.9	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=100	33.7	84.7	93.8	97.7	98.9	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=0	33.7	84.7	93.8	97.7	98.9	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 988

# 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL  
 HOUR : 1000 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

### VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=1	3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	30.2	55.9	57.5	58.2	58.2	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3
>=20000	30.6	56.6	58.2	58.9	58.9	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0
>=18000	30.7	56.8	58.3	59.0	59.0	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1
>=16000	30.7	56.9	58.4	59.1	59.1	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2
>=14000	31.0	57.8	59.4	60.1	60.1	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2
>=12000	31.4	58.8	60.4	61.1	61.1	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2
>=10000	31.4	58.9	60.6	61.3	61.3	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4
>= 9000	31.4	59.0	60.7	61.4	61.4	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5
>= 8000	31.5	59.4	61.1	61.8	61.8	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9
>= 7000	31.5	59.4	61.1	61.8	61.8	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9
>= 6000	31.5	59.5	61.2	61.9	61.9	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0
>= 5000	31.6	59.7	61.4	62.1	62.1	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2
>= 4500	31.6	59.9	61.7	62.4	62.4	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5
>= 4000	31.7	60.1	61.9	62.6	62.6	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7
>= 3500	31.7	60.1	61.9	62.6	62.6	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7
>= 3000	32.2	60.6	62.4	63.1	63.1	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2
>= 2500	32.3	60.7	62.5	63.2	63.2	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4
>= 2000	33.3	62.3	64.2	64.9	64.9	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
>= 1800	33.9	63.0	64.9	65.6	65.6	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7
>= 1500	36.0	67.4	69.3	70.1	70.1	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2
>= 1200	38.5	73.1	75.3	76.0	76.0	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1
>= 1000	40.6	80.3	83.0	84.0	84.0	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1
>= 900	41.7	83.6	86.4	87.3	87.3	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4
>= 800	42.1	87.7	91.1	92.1	92.1	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2
>= 700	42.7	92.0	95.7	96.8	96.9	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0
>= 600	42.8	93.8	97.8	99.1	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>= 500	42.8	94.1	98.2	99.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 400	42.8	94.1	98.2	99.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 300	42.8	94.1	98.2	99.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 200	42.8	94.1	98.2	99.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 100	42.8	94.1	98.2	99.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 0	42.8	94.1	98.2	99.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9

TOTAL NO. OF OPS : 985

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JUL  
HOUR : 1300 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	58.1	87.4	87.8	87.9	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0
>=20000	58.6	88.6	89.0	89.1	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2
>=18000	58.7	88.7	89.1	89.2	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3
>=16000	58.7	88.8	89.2	89.3	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4
>=14000	58.9	89.2	89.6	89.7	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8
>=12000	59.4	90.0	90.4	90.5	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6
>=10000	59.9	90.7	91.1	91.2	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
>= 9000	59.9	90.8	91.2	91.3	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4
>= 8000	59.9	90.9	91.3	91.4	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5
>= 7000	59.9	91.0	91.4	91.5	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6
>= 6000	60.0	91.2	91.6	91.8	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9
>= 5000	60.0	91.3	91.8	91.9	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0
>= 4500	60.0	91.3	91.8	91.9	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0
>= 4000	60.1	91.3	91.8	91.9	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0
>= 3500	60.1	91.4	91.9	92.0	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1
>= 3000	60.2	91.6	92.1	92.2	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3
>= 2500	60.6	92.1	92.5	92.6	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7
>= 2000	61.1	92.9	93.3	93.4	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5
>= 1800	61.2	93.0	93.4	93.5	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6
>= 1500	62.2	94.2	94.6	94.7	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8
>= 1200	63.6	95.8	97.4	97.5	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6
>= 1000	64.3	99.1	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 900	64.3	99.3	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 800	64.3	99.3	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 700	64.3	99.3	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 600	64.3	99.3	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 500	64.3	99.3	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 400	64.3	99.3	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 300	64.3	99.3	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 200	64.3	99.3	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 100	64.3	99.3	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 0	64.3	99.3	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 982



## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0	
UNLIMIT	61.9	90.2	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7
>=20000	62.6	91.9	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4
>=18000	62.6	92.2	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7
>=16000	62.6	92.3	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8
>=14000	63.2	93.0	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5
>=12000	63.8	93.9	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4
>=10000	64.0	94.1	94.6	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7
>=9000	64.0	94.1	94.6	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7
>=8000	64.1	94.6	95.1	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2
>=7000	64.1	94.8	95.3	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4
>=6000	64.1	94.8	95.3	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4
>=5000	64.1	95.0	95.5	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6
>=4500	64.1	95.0	95.5	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6
>=4000	64.1	95.0	95.5	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6
>=3500	64.1	95.0	95.5	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6
>=3000	64.3	95.3	95.8	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9
>=2500	64.4	95.5	96.0	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1
>=2000	64.6	95.7	96.2	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3
>=1800	64.8	96.0	96.5	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6
>=1500	64.9	96.8	97.4	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5
>=1200	65.0	97.6	98.1	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2
>=1000	65.3	98.9	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>=900	65.3	98.9	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>=800	65.4	99.2	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=700	65.4	99.3	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=600	65.4	99.3	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=500	65.4	99.3	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=400	65.4	99.3	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=300	65.4	99.3	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=200	65.4	99.3	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=100	65.4	99.3	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=0	65.4	99.3	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9

TOTAL NO. OF OBS : 983

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL  
 HOUR : 1900 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4
UNLIMIT	44.6	76.5	77.9	78.3	78.5	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6
>=20000	44.9	77.7	79.1	79.6	79.9	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
>=18000	45.0	78.1	79.6	80.0	80.3	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4
>=16000	45.1	78.2	79.7	80.1	80.4	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
>=14000	45.7	79.3	80.8	81.2	81.5	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6
>=12000	45.9	80.0	81.4	81.8	82.1	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2
>=10000	46.2	80.6	82.0	82.4	82.7	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
>= 9000	46.2	80.6	82.0	82.4	82.7	82.7	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
>= 8000	46.2	80.8	82.2	82.6	82.9	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0
>= 7000	46.3	80.9	82.3	82.7	83.0	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1
>= 6000	46.3	80.9	82.3	82.7	83.0	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1
>= 5000	46.3	81.0	82.4	82.8	83.1	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2
>= 4500	46.3	81.0	82.4	82.8	83.1	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2
>= 4000	46.3	81.0	82.4	82.8	83.1	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2
>= 3500	46.3	81.0	82.4	82.8	83.1	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2
>= 3000	46.4	81.1	82.5	82.9	83.2	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3
>= 2500	46.5	81.2	82.6	83.0	83.3	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4
>= 2000	46.5	81.5	82.9	83.3	83.6	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7
>= 1800	46.6	81.8	83.2	83.6	83.9	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0
>= 1500	47.1	82.5	84.0	84.4	84.7	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8
>= 1200	47.8	84.8	86.4	86.8	87.1	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2
>= 1000	48.3	86.8	88.3	88.8	89.2	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3
>= 900	48.9	88.5	90.0	90.5	90.9	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0
>= 800	49.4	91.4	92.9	93.6	94.0	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1
>= 700	49.6	93.1	94.7	95.5	96.0	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1
>= 600	50.1	94.5	96.6	97.6	98.1	98.1	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2
>= 500	50.2	95.3	97.7	98.7	99.3	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>= 400	50.2	95.7	98.3	99.3	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 300	50.2	95.7	98.3	99.3	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 200	50.2	95.7	98.3	99.3	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 100	50.2	95.7	98.3	99.3	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 0	50.2	95.7	98.3	99.3	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 983

# 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL  
 HOUR : 2200 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	40.8	61.7	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9
>=20000	40.9	62.2	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4
>=18000	40.9	62.3	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6
>=16000	41.1	62.6	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8
>=14000	41.6	63.6	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8
>=12000	42.4	64.6	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8
>=10000	42.4	64.7	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9
>=9000	42.4	64.7	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9
>=8000	42.5	65.0	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2
>=7000	42.5	65.0	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2
>=6000	42.5	65.1	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3
>=5000	42.5	65.1	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3
>=4500	42.5	65.1	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3
>=4000	42.5	65.1	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3
>=3500	42.5	65.1	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3
>=3000	42.5	65.3	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5
>=2500	42.5	65.3	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5
>=2000	42.9	65.7	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9
>=1800	42.9	65.8	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0
>=1500	43.3	66.9	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1
>=1200	44.3	69.4	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6
>=1000	45.3	72.7	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9
>=900	46.3	75.5	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7
>=800	47.6	78.4	78.7	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8
>=700	49.2	83.1	83.4	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5
>=600	50.6	90.0	90.6	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9
>=500	51.1	94.0	95.2	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6
>=400	51.3	96.6	98.4	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
>=300	51.5	97.3	99.2	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=200	51.5	97.3	99.3	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=100	51.5	97.3	99.3	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=0	51.5	97.3	99.3	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 988

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JUL  
HOUR : ALL

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0	
UNLIMIT	39.5	61.5	62.1	62.3	62.3	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	
>=20000	39.8	62.3	62.9	63.1	63.1	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	
>=18000	39.9	62.5	63.1	63.3	63.3	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	
>=16000	40.0	62.7	63.3	63.4	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	
>=14000	40.4	63.4	64.1	64.2	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	
>=12000	40.8	64.2	64.8	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	
>=10000	40.9	64.5	65.1	65.3	65.3	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	
>= 9000	40.9	64.5	65.2	65.3	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	
>= 8000	41.0	64.8	65.5	65.6	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	
>= 7000	41.0	64.9	65.6	65.7	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	
>= 6000	41.0	65.0	65.7	65.8	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	
>= 5000	41.1	65.1	65.7	65.9	65.9	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	
>= 4500	41.1	65.2	65.8	66.0	66.0	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	
>= 4000	41.1	65.2	65.8	66.0	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	
>= 3500	41.1	65.2	65.9	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	
>= 3000	41.3	65.4	66.1	66.2	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	
>= 2500	41.4	65.7	66.3	66.5	66.5	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	
>= 2000	41.9	66.4	67.0	67.2	67.2	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	
>= 1800	42.1	66.7	67.4	67.5	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	
>= 1500	43.1	68.6	69.2	69.4	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	
>= 1200	44.8	72.1	72.8	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	
>= 1000	46.5	76.7	77.6	77.8	77.8	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	
>= 900	47.3	79.1	80.1	80.3	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	
>= 800	48.2	82.2	83.3	83.6	83.7	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	
>= 700	49.1	85.5	86.9	87.2	87.3	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	
>= 600	49.8	89.5	91.5	92.0	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	
>= 500	50.2	92.6	94.9	95.7	95.9	95.9	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	
>= 400	50.5	94.5	97.5	98.5	98.7	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	
>= 300	50.6	95.1	98.2	99.3	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	
>= 200	50.6	95.1	98.3	99.5	99.8	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
>= 100	50.6	95.1	98.3	99.5	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
>= 0	50.6	95.1	98.3	99.5	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TOTAL NO. OF OBS : 7887

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 0100 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										TOTAL	MEAN	
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55		%	WIND SPEED
N	.0	.5	.1	.0	.0	.0	.0	.0	.0	.0	.6	.6	5.7
NNE	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	2.7
NE	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	3.0
ENE	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	2.7
E	.3	.3	.1	.1	.0	.0	.0	.0	.0	.0	.8	.8	5.0
ESE	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.5	.5	3.4
SE	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.3	.3	5.0
SSE	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.4	.4	6.5
S	.6	.6	.7	.0	.0	.0	.0	.0	.0	.0	1.9	1.9	5.4
SSW	.3	1.3	.9	.5	.0	.0	.0	.0	.0	.0	4.0	4.0	7.3
SW	1.5	4.1	6.3	2.1	.1	.0	.0	.0	.0	.0	14.1	14.1	7.4
WSW	.8	5.7	9.7	5.1	.3	.0	.0	.0	.0	.0	21.7	21.7	8.5
W	2.4	9.4	15.1	7.1	.3	.0	.0	.0	.0	.0	34.4	34.4	8.1
WNW	2.6	3.9	2.2	.6	.0	.0	.0	.0	.0	.0	9.4	9.4	5.6
NW	1.2	1.6	.4	.0	.0	.0	.0	.0	.0	.0	3.2	3.2	4.4
NNW	.1	.8	.7	.0	.0	.0	.0	.0	.0	.0	.9	.9	4.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ALL	10.9	29.0	36.8	15.5	.7	.1	.0	.0	.0	.0	100.0	100.0	6.9

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 0400 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL	MEAN
												%	WIND SPEED
N	.7	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3	3.6
NNE	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	2.0
NE	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	3.3
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.5	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.7	3.6
ESE	.5	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.0	3.9
SE	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	3.2
SSE	.1	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.5	5.0
S	.5	.7	.5	.1	.0	.0	.0	.0	.0	.0	.0	1.8	5.5
SSW	.8	1.8	1.1	.2	.0	.0	.0	.0	.0	.0	.0	3.9	5.7
SW	.2	4.1	4.7	2.1	.0	.0	.0	.0	.0	.0	.0	11.8	7.7
WSW	1.5	6.5	10.3	3.4	.0	.0	.0	.0	.0	.0	.0	21.7	7.6
W	2.9	8.3	15.3	5.2	.1	.0	.0	.0	.0	.0	.0	31.9	7.8
WNW	2.6	4.7	1.9	.2	.0	.0	.0	.0	.0	.0	.0	9.5	5.1
NW	1.4	1.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	3.2	4.0
NNW	.8	.7	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.6	3.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.1	.0
ALL	13.8	30.1	34.6	11.3	.1	.0	.0	.0	.0	.0	.0	100.0	6.2

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 0700 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	SPEED (KNOTS)										TOTAL #	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55		
N	1.4	.5	.1	.0	.0	.0	.0	.0	.0	.0	2.0	3.2
NNE	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.7	3.4
NE	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.3	4.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.6	3.7
ESE	.8	.9	.0	.0	.0	.0	.0	.0	.0	.0	1.7	3.3
SE	.5	.6	.4	.0	.0	.0	.0	.0	.0	.0	1.5	4.8
SSE	.3	.7	.4	.0	.0	.0	.0	.0	.0	.0	1.4	5.1
S	1.2	1.9	.7	.3	.0	.0	.0	.0	.0	.0	4.1	5.2
SSW	.8	2.0	1.9	.7	.0	.0	.0	.0	.0	.0	5.4	6.6
SW	.9	3.4	6.1	1.7	.1	.0	.0	.0	.0	.0	12.3	7.8
WSW	1.4	5.5	7.3	1.7	.1	.0	.0	.0	.0	.0	16.0	7.2
W	3.8	9.4	12.3	3.3	.1	.0	.0	.0	.0	.0	28.9	6.9
WNW	2.5	2.5	1.7	.3	.0	.0	.0	.0	.0	.0	7.1	5.0
NW	1.2	1.5	.2	.1	.0	.0	.0	.0	.0	.0	3.0	4.1
NNW	1.4	.8	.1	.0	.0	.0	.0	.0	.0	.0	2.3	3.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.5	.0
ALL	17.0	30.7	31.3	6.2	.3	.0	.0	.0	.0	.0	100.0	5.6

TOTAL NO. OF OBS : 992

NOTES :  
 # = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 1000 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	SPEED (KNOTS)																TOTAL	MEAN
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	2	1	WIND	SPEED			
N	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	4.6	
NNE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	4.0	
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
ESE	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	3.5	
SE	.5	.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.4	4.3	
SSE	.6	1.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2	4.1	
S	1.8	3.9	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.4	4.6	
SSW	2.0	2.9	1.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.8	5.2	
SW	2.8	4.6	3.6	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.6	6.3	
WSW	3.1	9.4	6.4	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20.9	6.4	
W	3.2	10.2	13.0	4.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	30.9	7.3	
WNW	.9	2.7	1.8	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.5	5.9	
NW	.6	3.6	1.7	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.0	5.7	
NNW	.6	1.6	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.7	5.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.7	.0	
ALL	16.5	41.7	29.1	8.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	6.0	

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05



# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 1300 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	1	3	4	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL %	MEAN WIND SPEED
N	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	6.5
NNE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	6.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SE	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	4.0
SSE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
S	.0	.3	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	7.6
SSW	.2	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	6.1
SW	.3	1.2	2.7	1.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	5.6	8.9
WSW	.0	1.4	7.4	4.5	.4	.0	.0	.0	.0	.0	.0	.0	.0	13.7	10.1
W	.3	4.4	22.8	19.8	1.7	.0	.0	.0	.0	.0	.0	.0	.0	49.2	10.5
WNW	.1	2.8	9.3	5.8	.2	.0	.0	.0	.0	.0	.0	.0	.0	18.2	9.4
NW	.2	3.6	4.1	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.7	7.2
NNW	.1	.7	1.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	7.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0
ALL	1.3	15.3	48.3	32.4	2.4	.2	.0	.0	.0	.0	.0	.0	.0	100.0	9.7

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 PERIOD OF RECORD : 1955-1986 MONTH : AUG  
 CLASS : ALL WEATHER HOUR : 1600 LST  
 CONDITION : NONE SPECIFIED

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	1	3	4	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL	MEAN WIND SPEED
N	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	5.0
NNE	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	3.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SSW	.0	.0	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	10.8
SW	.0	.5	1.3	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.0	9.8
WSW	.0	.6	3.8	4.3	.9	.0	.0	.0	.0	.0	.0	.0	.0	9.8	11.5
W	.1	1.9	19.3	34.3	5.9	.7	.0	.0	.0	.0	.0	.0	.0	62.2	12.1
WNW	.0	1.7	7.4	8.2	1.1	.0	.0	.0	.0	.0	.0	.0	.0	18.4	11.1
NW	.1	1.3	2.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.4	7.8
NNW	.0	.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	7.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0
ALL	.3	7.0	34.8	48.9	8.0	.9	.0	.0	.0	.0	.0	.0	.0	100.0	11.5

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 1900 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	SPEED (KNOTS)										TOTAL %	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	
N	.0	.5	.0	.1	.0	.0	.0	.0	.0	.0	.6	6.2
NNE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	6.0
NE	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	7.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	4.0
S	.1	.6	.1	.0	.0	.0	.0	.0	.0	.0	.8	5.0
SSW	.1	.4	.2	.1	.0	.0	.0	.0	.0	.0	.8	6.5
SW	.3	1.7	1.9	.7	.0	.0	.0	.0	.0	.0	4.6	7.5
WSW	.0	1.5	5.3	5.9	.5	.0	.0	.0	.0	.0	13.3	10.5
W	.4	6.1	23.2	25.8	2.8	.3	.0	.0	.0	.0	58.7	10.8
WNW	.5	2.9	8.7	4.0	.0	.0	.0	.0	.0	.0	16.1	8.9
NW	.2	1.6	1.5	.0	.0	.0	.0	.0	.0	.0	3.3	6.8
NNW	.3	.3	.4	.0	.0	.0	.0	.0	.0	.0	1.0	5.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0
ALL	1.9	15.9	41.4	36.7	3.3	.3	.0	.0	.0	.0	100.0	9.9

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 2200 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	1	3	4	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL %	MEAN WIND SPEED
N	.4	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	3.6
NNE	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	2.0
NE	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	2.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	6.0
ESE	.2	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	5.0
SE	.2	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	5.6
SSE	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	5.3
S	.9	.5	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0	5.3
SSW	1.0	1.2	.9	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.3	5.6
SW	1.1	4.5	4.4	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.1	7.2
WSW	1.3	6.4	9.1	3.7	.1	.0	.0	.0	.0	.0	.0	.0	.0	20.6	7.8
W	2.3	11.1	17.9	7.9	.7	.1	.0	.0	.0	.0	.0	.0	.0	40.0	8.4
WNW	1.2	4.7	3.3	.9	.1	.0	.0	.0	.0	.0	.0	.0	.0	10.3	6.6
NW	.4	1.9	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.5	5.1
NNW	.5	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	5.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.3	.0
ALL	10.0	31.6	37.0	15.1	.9	.1	.0	.0	.0	.0	.0	.0	.0	100.0	7.1

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : ALL

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

DIR.	1-3	4	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL %	MEAN WIND SPEED
N	.3	.4		.1	.0*	.0	.0	.0	.0	.0	.0	.0	.8	4.3
NNE	.1	.1		.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	3.4
NE	.1	.1		.0*	.0	.0	.0	.0	.0	.0	.0	.0	.2	3.4
ENE	.0*	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	2.7
E	.1	.1		.0*	.0*	.0	.0	.0	.0	.0	.0	.0	.3	4.2
ESE	.2	.2		.0*	.0	.0	.0	.0	.0	.0	.0	.0	.5	3.7
SE	.2	.2		.1	.0*	.0	.0	.0	.0	.0	.0	.0	.6	4.5
SSE	.1	.4		.1	.0	.0	.0	.0	.0	.0	.0	.0	.6	4.8
S	.6	1.1		.4	.1	.0	.0	.0	.0	.0	.0	.0	2.2	5.1
SSW	.7	1.2		1.0	.3	.0	.0	.0	.0	.0	.0	.0	3.2	6.1
SW	1.0	3.0		3.9	1.6	.0*	.0	.0	.0	.0	.0	.0	9.5	7.5
WSW	1.0	4.6		7.4	3.9	.3	.0*	.0	.0	.0	.0	.0	17.2	8.3
W	1.9	7.6		17.4	13.5	1.5	.2	.0	.0	.0	.0	.0	42.0	9.5
WNW	1.3	3.3		4.5	2.5	.2	.0*	.0	.0	.0	.0	.0	11.8	8.0
NW	.7	2.1		1.4	.2	.0	.0	.0	.0	.0	.0	.0	4.3	6.0
NNW	.5	.7		.4	.1	.0	.0	.0	.0	.0	.0	.0	1.6	5.2
VAR	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	4.9	.0
ALL	9.0	25.2		36.7	22.1	2.0	.2	.0	.0	.0	.0	.0	100.0	7.9

TOTAL NO. OF OBS : 7936

NOTES :  
 \* = PERCENT < .05

# 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 0100 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1 1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	35.8	50.5	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6
>=20000	36.2	51.3	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4
>=18000	36.3	51.4	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5
>=16000	36.5	51.6	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7
>=14000	37.0	52.2	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3
>=12000	38.0	53.3	53.4	53.4	53.4	53.4	53.4	53.4	53.4	53.4	53.4	53.4	53.4	53.4	53.4	53.4
>=10000	38.3	53.7	53.8	53.8	53.8	53.8	53.8	53.8	53.8	53.8	53.8	53.8	53.8	53.8	53.8	53.8
>= 9000	38.4	53.8	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9
>= 8000	38.5	53.9	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
>= 7000	38.5	54.0	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1
>= 6000	38.5	54.0	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1
>= 5000	38.5	54.0	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1
>= 4000	38.5	54.0	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1
>= 3500	38.5	54.0	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1
>= 3000	38.6	54.3	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5
>= 2500	38.7	54.7	54.9	54.9	54.9	54.9	54.9	54.9	54.9	54.9	54.9	54.9	54.9	54.9	54.9	54.9
>= 2000	38.8	55.3	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5
>= 1800	38.9	55.5	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7
>= 1500	39.4	57.0	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2
>= 1200	41.0	60.2	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4
>= 1000	44.2	65.9	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2
>= 900	45.5	68.3	68.6	68.6	68.6	68.6	68.6	68.6	68.6	68.6	68.6	68.6	68.6	68.6	68.6	68.6
>= 800	47.0	71.8	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3
>= 700	48.9	76.9	77.4	77.5	77.5	77.5	77.5	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6
>= 600	50.7	84.5	85.3	85.6	85.7	85.7	85.7	85.8	85.8	85.8	85.8	85.8	85.8	85.8	85.8	85.8
>= 500	51.9	89.2	91.1	91.4	91.5	91.5	91.5	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6
>= 400	52.0	94.2	96.0	96.8	97.0	97.0	97.0	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1
>= 300	52.3	96.5	98.4	99.5	99.8	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 200	52.3	96.6	98.5	99.6	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 100	52.3	96.6	98.5	99.6	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 0	52.3	96.6	98.5	99.6	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 988

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 0400 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)											
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=1/4
UNLIMIT	27.9	38.7	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8
>=20000	28.3	39.4	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5
>=18000	28.1	39.4	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5
>=16000	28.4	39.5	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6
>=14000	28.8	40.1	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2
>=12000	29.8	41.3	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4
>=10000	30.2	42.0	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1
>= 9000	30.2	42.0	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1
>= 8000	30.4	42.2	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3
>= 7000	30.4	42.2	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3
>= 6000	30.5	42.3	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4
>= 5000	30.7	42.5	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6
>= 4500	30.8	42.7	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8
>= 4000	30.8	42.8	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9
>= 3500	30.8	42.9	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
>= 3000	30.9	43.0	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1
>= 2500	31.2	43.3	43.4	43.4	43.4	43.4	43.4	43.4	43.4	43.4	43.4	43.4
>= 2000	31.7	44.3	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4
>= 1800	31.9	44.8	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9
>= 1500	33.0	47.0	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1
>= 1200	34.2	50.7	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
>= 1000	38.3	57.0	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1
>= 900	40.5	61.7	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9
>= 800	42.9	67.0	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2
>= 700	45.4	72.7	72.9	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1
>= 600	47.4	81.2	81.8	82.3	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4
>= 500	48.4	87.6	88.2	89.4	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6
>= 400	49.7	92.7	94.8	95.6	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8
>= 300	49.8	94.5	97.3	98.7	99.0	99.0	99.0	99.1	99.1	99.1	99.1	99.1
>= 200	49.8	94.8	97.7	99.1	99.5	99.6	99.6	99.8	99.8	99.9	99.9	99.9
>= 100	49.8	94.9	97.8	99.2	99.6	99.7	99.8	99.9	100.0	100.0	100.0	100.0
>= 0	49.8	94.9	97.8	99.2	99.6	99.7	99.8	99.9	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 991

# 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 0700 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

### VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	>=1/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	18.5	31.1	31.6	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7
>=20000	18.8	31.8	32.3	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4
>=18000	19.0	32.2	32.7	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8
>=16000	19.0	32.2	32.7	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8
>=14000	19.9	33.4	33.9	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0
>=12000	20.4	34.3	34.9	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0
>=10000	20.7	34.8	35.3	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4
>= 9000	20.7	34.9	35.4	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5
>= 8000	21.2	35.4	35.9	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0
>= 7000	21.2	35.6	36.1	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2
>= 6000	21.2	35.6	36.1	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2
>= 5000	21.2	35.6	36.1	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2
>= 4500	21.2	35.6	36.1	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2
>= 4000	21.2	35.6	36.1	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2
>= 3500	21.2	35.6	36.1	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2
>= 3000	21.5	36.1	36.6	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7
>= 2500	21.9	36.5	37.0	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1
>= 2000	22.3	37.1	37.7	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8
>= 1800	22.7	37.9	38.5	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6
>= 1500	24.3	41.0	41.7	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8
>= 1200	26.3	46.0	46.9	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0
>= 1000	28.6	53.9	55.2	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3
>= 900	30.6	60.2	61.7	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8
>= 800	31.2	65.6	67.6	67.9	67.9	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0
>= 700	31.8	70.3	73.4	74.5	74.5	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6
>= 600	32.5	76.7	80.4	82.3	82.6	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0
>= 500	32.7	81.5	86.8	89.6	90.0	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8
>= 400	32.7	84.8	91.6	95.6	96.1	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2
>= 300	32.8	85.4	92.7	97.6	98.4	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
>= 200	32.8	85.4	92.7	97.6	98.4	99.1	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 100	32.8	85.5	92.8	97.7	98.5	99.2	99.9	99.9	99.9	99.9	99.9	100.0	100.0	100.0
>= 0	32.8	85.5	92.8	97.7	98.5	99.2	99.9	99.9	99.9	99.9	99.9	100.0	100.0	100.0

TOTAL NO. OF OBS : 987



## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : AUG  
HOUR : 1000 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	29.7	53.1	54.2	55.4	56.0	56.0	56.2	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.4	56.4
>=20000	30.6	54.4	55.6	56.7	57.3	57.3	57.5	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.7	57.7
>=18000	30.6	54.4	55.6	56.7	57.3	57.3	57.5	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.7	57.7
>=16000	30.7	54.6	55.8	56.9	57.5	57.5	57.7	57.8	57.8	57.8	57.8	57.8	57.8	57.8	57.9	57.9
>=14000	31.0	55.4	56.5	57.6	58.2	58.2	58.4	58.5	58.5	58.5	58.5	58.5	58.5	58.5	58.6	58.6
>=12000	31.4	56.5	57.7	58.9	59.5	59.5	59.7	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.9	59.9
>=10000	31.9	57.1	58.3	59.5	60.1	60.1	60.3	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.6	60.6
>=9000	31.9	57.2	58.4	59.6	60.2	60.2	60.4	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.7	60.7
>=8000	32.3	57.6	58.8	60.0	60.7	60.7	60.9	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.1	61.1
>=7000	32.3	57.6	58.8	60.0	60.7	60.7	60.9	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.1	61.1
>=6000	32.4	57.8	59.0	60.2	60.9	60.9	61.1	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.3	61.3
>=5000	32.5	58.0	59.2	60.4	61.1	61.1	61.3	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.5	61.5
>=4500	32.5	58.0	59.2	60.4	61.1	61.1	61.3	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.5	61.5
>=4000	32.5	58.0	59.2	60.4	61.1	61.1	61.3	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.5	61.5
>=3500	32.5	58.0	59.2	60.4	61.1	61.1	61.3	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.5	61.5
>=3000	32.7	58.3	59.5	60.8	61.4	61.4	61.6	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.8	61.8
>=2500	33.1	58.7	59.9	61.2	61.8	61.8	62.0	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.2	62.2
>=2000	34.0	60.0	61.3	62.5	63.1	63.1	63.3	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.5	63.5
>=1800	34.7	60.8	62.1	63.3	63.9	63.9	64.1	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.3	64.3
>=1500	36.4	64.3	65.6	66.9	67.5	67.5	67.7	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.9	67.9
>=1200	38.7	70.2	71.6	72.8	73.4	73.4	73.6	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.8	73.8
>=1000	40.6	78.4	80.3	81.7	82.3	82.4	82.6	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.8	82.8
>=900	41.6	81.9	83.8	85.2	85.9	86.0	86.2	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.4	86.4
>=800	42.2	85.5	88.1	89.8	90.5	90.6	90.8	90.9	90.9	90.9	90.9	90.9	90.9	90.9	91.0	91.0
>=700	42.9	89.4	92.2	94.1	95.0	95.1	95.3	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.5	95.5
>=600	43.0	91.8	95.1	97.0	98.1	98.2	98.4	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.6	98.6
>=500	43.0	92.7	96.2	98.2	99.2	99.3	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.7	99.7
>=400	43.0	92.9	96.4	98.4	99.4	99.4	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100.0	100.0
>=300	43.0	92.9	96.4	98.4	99.4	99.4	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100.0	100.0
>=200	43.0	92.9	96.4	98.4	99.4	99.4	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100.0	100.0
>=100	43.0	92.9	96.4	98.4	99.4	99.4	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100.0	100.0
>=0	43.0	92.9	96.4	98.4	99.4	99.4	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100.0	100.0

TOTAL NO. OF OBS : 981

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : AUG  
HOUR : 1300 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1 1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	59.5	85.0	85.8	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9
>=20000	60.1	86.3	87.1	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2
>=18000	60.2	86.5	87.3	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4
>=16000	60.5	86.7	87.5	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6
>=14000	60.9	87.8	88.7	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8
>=12000	61.3	89.0	89.8	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0
>=10000	61.6	89.5	90.3	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5
>= 9000	61.6	89.5	90.3	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5
>= 8000	61.8	89.8	90.6	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8
>= 7000	61.8	89.9	90.7	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9
>= 6000	61.9	90.0	90.8	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0
>= 5000	61.9	90.1	90.9	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1
>= 4500	62.0	90.2	91.0	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
>= 4000	62.1	90.3	91.1	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
>= 3500	62.2	90.4	91.2	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5
>= 3000	62.5	90.7	91.6	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8
>= 2500	62.7	91.0	91.9	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1
>= 2000	63.4	92.0	92.8	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0
>= 1800	63.7	92.4	93.2	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4
>= 1500	64.5	93.2	94.0	94.2	94.2	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3
>= 1200	64.8	94.4	95.4	95.6	95.6	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7
>= 1000	65.4	97.7	98.7	98.9	98.9	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
>= 900	65.5	98.2	99.3	99.5	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
>= 800	65.5	98.6	99.6	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 700	65.5	98.7	99.7	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 600	65.5	98.7	99.7	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 500	65.5	98.7	99.7	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 400	65.5	98.7	99.7	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 300	65.5	98.7	99.7	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 200	65.5	98.7	99.7	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 100	65.5	98.7	99.7	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 0	65.5	98.7	99.7	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 971

# 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 1600 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0	
UNLIMIT	58.6	87.4	87.9	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	
>=20000	59.9	89.6	90.1	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	
>=18000	60.0	90.1	90.7	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	
>=16000	60.3	90.5	91.0	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	
>=14000	60.9	91.4	92.0	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	
>=12000	61.5	92.8	93.4	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	
>=10000	61.5	93.0	93.6	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	
>= 9000	61.5	93.0	93.6	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	
>= 8000	62.1	93.7	94.4	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	
>= 7000	62.1	93.8	94.5	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	
>= 6000	62.1	93.8	94.5	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	
>= 5000	62.1	93.9	94.6	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	
>= 4500	62.1	93.9	94.6	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	
>= 4000	62.1	93.9	94.6	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	
>= 3500	62.1	93.9	94.6	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	
>= 3000	62.2	94.0	94.7	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	
>= 2500	62.3	94.1	94.8	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	
>= 2000	62.8	94.8	95.4	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	
>= 1800	62.9	94.9	95.5	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	
>= 1500	63.2	95.4	96.0	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	
>= 1200	63.6	96.0	96.7	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	
>= 1000	64.2	97.5	98.4	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	
>= 900	64.2	97.9	98.8	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	
>= 800	64.3	98.5	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	
>= 700	64.3	98.6	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	
>= 600	64.3	98.6	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	
>= 500	64.3	98.7	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	
>= 400	64.3	98.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
>= 300	64.3	98.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
>= 200	64.3	98.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
>= 100	64.3	98.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
>= 0	64.3	98.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TOTAL NO. OF OPS : 974

# 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 1900 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

### VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1 1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	42.0	70.6	72.0	72.4	72.5	72.5	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6
>=20000	42.5	72.0	73.4	73.9	74.0	74.0	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1
>=18000	42.6	72.2	73.6	74.1	74.2	74.2	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3
>=16000	42.8	72.4	73.8	74.3	74.4	74.4	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5
>=14000	44.0	73.9	75.5	76.0	76.1	76.1	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2
>=12000	44.3	75.1	76.6	77.1	77.2	77.2	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3
>=10000	44.4	75.5	77.0	77.5	77.6	77.6	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7
>= 9000	44.5	75.6	77.1	77.6	77.7	77.7	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8
>= 8000	44.8	76.3	77.8	78.3	78.4	78.4	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5
>= 7000	44.9	76.4	77.9	78.4	78.5	78.5	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6
>= 6000	45.0	76.5	78.0	78.5	78.6	78.6	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7
>= 5000	45.0	76.5	78.0	78.5	78.6	78.6	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7
>= 4500	45.0	76.6	78.1	78.6	78.7	78.7	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8
>= 4000	45.0	76.6	78.1	78.6	78.7	78.7	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8
>= 3500	45.0	76.6	78.1	78.6	78.7	78.7	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8
>= 3000	45.1	76.8	78.3	78.8	78.9	78.9	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0
>= 2500	45.1	76.8	78.3	78.8	78.9	78.9	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0
>= 2000	45.3	77.3	78.8	79.3	79.4	79.4	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6
>= 1800	45.3	77.4	78.9	79.4	79.6	79.6	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7
>= 1500	45.9	78.2	79.8	80.3	80.4	80.4	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
>= 1200	46.1	79.4	81.1	81.7	81.8	81.8	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9
>= 1000	46.7	81.9	83.6	84.3	84.4	84.4	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5
>= 900	47.0	83.5	85.4	86.2	86.3	86.3	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4
>= 800	47.3	86.1	88.2	89.2	89.3	89.3	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4
>= 700	48.1	90.0	92.5	93.8	93.9	93.9	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0
>= 600	48.3	93.5	96.3	97.9	98.0	98.0	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1
>= 500	48.3	94.4	97.4	99.0	99.1	99.1	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
>= 400	48.3	95.0	98.2	99.7	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 300	48.3	95.0	98.2	99.7	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 200	48.4	95.1	98.3	99.8	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 100	48.4	95.1	98.3	99.8	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 0	48.4	95.1	98.3	99.8	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 978

# 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 2200 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

### VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	42.6	60.5	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8
>=20000	43.0	61.2	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5
>=18000	43.0	61.2	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5
>=16000	43.1	61.3	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6
>=14000	43.6	61.8	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1
>=12000	44.7	63.2	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5
>=10000	45.1	63.7	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0
>=9000	45.1	63.8	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1
>=8000	45.3	64.1	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4
>=7000	45.3	64.2	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5
>=6000	45.3	64.3	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6
>=5000	45.3	64.3	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6
>=4500	45.3	64.3	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6
>=4000	45.4	64.4	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7
>=3500	45.4	64.4	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7
>=3000	45.6	64.6	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9
>=2500	45.7	64.7	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
>=2000	45.7	64.9	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2
>=1800	45.7	64.9	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2
>=1500	46.3	66.0	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3
>=1200	47.1	68.0	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3
>=1000	49.1	71.6	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9
>=900	49.9	74.2	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5
>=800	50.9	77.8	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3
>=700	51.4	82.4	82.9	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0
>=600	52.2	89.5	90.4	90.5	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6
>=500	52.9	93.8	94.9	95.0	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1
>=400	53.2	96.9	98.4	98.6	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8
>=300	53.4	98.0	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=200	53.4	98.0	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=100	53.4	98.0	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=0	53.4	98.0	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 988

# 2 - CEILING VS VISIBILITY

023339 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : ALL

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

### VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1 1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	39.3	59.5	60.1	60.3	60.4	60.4	60.4	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5
>=20000	39.9	60.6	61.2	61.5	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6
>=18000	39.9	60.8	61.4	61.7	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8
>=16000	40.1	61.0	61.6	61.8	61.9	61.9	61.9	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0
>=14000	40.7	61.9	62.5	62.8	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9
>=12000	41.3	63.1	63.7	64.0	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1
>=10000	41.6	63.5	64.2	64.4	64.5	64.5	64.5	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6
>= 9000	41.7	63.6	64.2	64.5	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6
>= 8000	42.0	64.0	64.6	64.9	65.0	65.0	65.0	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1
>= 7000	42.0	64.1	64.7	65.0	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1
>= 6000	42.0	64.2	64.8	65.1	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2
>= 5000	42.1	64.2	64.9	65.2	65.2	65.2	65.2	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3
>= 4500	42.1	64.3	64.9	65.2	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3
>= 4000	42.1	64.3	65.0	65.2	65.3	65.3	65.3	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4
>= 3500	42.1	64.4	65.0	65.3	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4
>= 3000	42.3	64.6	65.3	65.5	65.6	65.6	65.6	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7
>= 2500	42.5	64.9	65.5	65.8	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9
>= 2000	42.9	65.6	66.3	66.5	66.6	66.6	66.6	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7
>= 1800	43.2	65.9	66.6	66.9	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
>= 1500	44.0	67.7	68.4	68.6	68.7	68.7	68.7	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8
>= 1200	45.2	70.5	71.3	71.6	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7
>= 1000	47.1	75.4	76.3	76.6	76.7	76.7	76.7	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8
>= 900	48.0	78.1	79.1	79.5	79.6	79.6	79.6	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7
>= 800	48.9	81.3	82.5	82.9	83.0	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1
>= 700	49.7	84.8	86.2	86.4	87.0	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1
>= 600	50.4	89.3	91.0	91.9	92.1	92.1	92.1	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2
>= 500	50.8	92.1	94.3	95.3	95.5	95.6	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7
>= 400	51.1	94.2	96.8	98.1	98.3	98.4	98.5	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
>= 300	51.1	94.9	97.7	99.2	99.5	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 200	51.2	95.0	97.8	99.3	99.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 100	51.2	95.0	97.8	99.3	99.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 0	51.2	95.0	97.8	99.3	99.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9

TOTAL NO. OF OBS : 7858

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : 0100 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. 1		1	-	3	4	-	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	TOTAL	MEAN
DIR. 1		1		1	1	1	1	1	1	1	1	1	1	1	1	1	%	SPEED
N	1.4		.7		.1		.1		.2		.0	.0	.0	.0	.0	.0	2.5	5.1
NNE	.2		.3		.0		.0		.0		.0	.0	.0	.0	.0	.0	.5	3.2
NE	.3		.4		.0		.0		.0		.0	.0	.0	.0	.0	.0	.7	3.9
ENE	.3		.0		.0		.0		.0		.0	.0	.0	.0	.0	.0	.3	3.0
E	1.6		.7		.2		.0		.0		.0	.0	.0	.0	.0	.0	2.5	3.4
ESE	.4		1.2		.2		.0		.1		.0	.0	.0	.0	.0	.0	2.0	5.2
SE	.5		.3		.3		.1		.0		.0	.1	.0	.0	.0	.0	1.4	6.8
SSE	.4		.4		.2		.0		.0		.0	.0	.0	.0	.0	.0	1.0	4.4
S	.5		.6		.5		.1		.0		.0	.0	.0	.0	.0	.0	1.8	5.3
SSW	.4		1.2		.9		.3		.0		.0	.0	.0	.0	.0	.0	2.9	6.5
SW	1.5		2.2		2.4		1.0		.0		.0	.0	.0	.0	.0	.0	7.1	6.8
WSW	1.5		4.8		6.7		2.0		.1		.0	.0	.0	.0	.0	.0	15.0	7.5
W	2.1		10.0		12.8		2.9		.1		.0	.0	.0	.0	.0	.0	27.9	7.1
WNW	3.1		5.6		1.4		.4		.0		.0	.0	.0	.0	.0	.0	10.5	4.9
NW	1.7		2.3		.7		.3		.0		.0	.0	.0	.0	.0	.0	5.0	5.2
NNW	.9		.9		.5		.1		.0		.0	.0	.0	.0	.0	.0	2.5	5.0
VAR	.0		.0		.0		.0		.0		.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0		.0		.0		.0		.0		.0	.0	.0	.0	.0	.0	16.4	.0
ALL	16.8		31.9		27.0		7.4		.5		.0	.1	.0	.0	.0	.0	100.0	5.3

TOTAL NO. OF OBS : 560

NOTES : \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : 0400 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										TOTAL %	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55		
N	3.9	2.0	.3	.4	.0	.0	.0	.0	.0	.0	6.6	4.0
NNE	.5	.2	.0	.0	.1	.0	.0	.0	.0	.0	.8	5.0
NE	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.5	3.0
ENE	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.3	4.3
E	1.0	.6	.1	.0	.0	.0	.0	.0	.0	.0	1.8	3.6
ESE	1.4	1.9	.0	.1	.0	.0	.0	.0	.0	.0	3.3	4.2
SE	.7	1.2	.3	.1	.0	.1	.0	.0	.0	.0	2.5	5.9
SSE	.3	.5	.2	.1	.0	.0	.0	.0	.0	.0	1.1	5.5
S	.5	.8	.3	.0	.0	.0	.0	.0	.0	.0	1.7	4.8
SSW	.3	1.1	1.0	.1	.0	.0	.0	.0	.0	.0	2.6	6.1
SW	1.5	3.4	2.1	.7	.0	.0	.0	.0	.0	.0	7.7	6.2
WSW	1.6	4.5	5.1	1.5	.1	.0	.0	.0	.0	.0	12.7	7.1
W	2.7	10.0	9.9	2.5	.1	.0	.0	.0	.0	.0	25.2	6.8
WNW	2.4	4.5	1.8	.4	.0	.0	.0	.0	.0	.0	9.1	5.3
NW	2.0	1.4	.6	.1	.0	.0	.0	.0	.0	.0	4.1	4.3
NNW	2.1	1.0	.3	.0	.0	.0	.0	.0	.0	.0	3.4	3.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	16.6	.0
ALL	21.4	33.5	22.1	6.0	.3	.1	.0	.0	.0	.0	100.0	4.9

TOTAL NO. OF OBS : 960

NOTES :  
 \* = PERCENT < .05



# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-198A  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : 0700 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										TOTAL %	MEAN WIND SPEED
	1-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56		
N	2.6	2.0	1.4	.2	.0	.0	.0	.0	.0	.0	6.1	4.8
NNE	.9	.5	.0	.0	.0	.0	.0	.0	.0	.0	1.5	3.2
NE	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	2.5
ENE	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.5	4.2
E	1.5	1.0	.3	.0	.0	.0	.0	.0	.0	.0	2.8	4.0
ESE	1.7	2.5	1.0	.1	.0	.0	.0	.0	.0	.0	5.3	5.0
SE	.8	1.6	.3	.1	.0	.0	.0	.0	.0	.0	2.8	4.6
SSE	.1	.3	.6	.1	.0	.0	.0	.0	.0	.0	1.1	7.5
S	1.2	1.4	.6	.0	.0	.0	.0	.0	.0	.0	3.3	5.2
SSW	.8	2.4	1.0	.1	.0	.0	.0	.0	.0	.0	4.4	5.4
SW	1.4	2.6	3.1	.2	.0	.0	.0	.0	.0	.0	7.3	6.1
WSW	1.0	3.1	3.2	1.1	.0	.0	.0	.0	.0	.0	8.5	6.8
W	3.9	7.6	6.7	1.9	.0	.0	.0	.0	.0	.0	20.0	6.2
WNW	2.2	3.1	1.2	.0	.0	.0	.0	.0	.0	.0	6.6	4.8
NW	1.5	2.4	.7	.0	.0	.0	.0	.0	.0	.0	4.6	4.5
NNW	3.1	2.2	.2	.0	.0	.0	.0	.0	.0	.0	5.7	3.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19.2	.0
ALL	23.2	32.8	20.6	4.1	.0	.0	.0	.0	.0	.0	100.0	4.4

TOTAL NO. OF OBS : 960

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : 1000 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

SPEED (KNOTS)																TOTAL %	MEAN WIND SPEED
16 PT. DIR.	1	3	4	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56				
N	.6		.9		.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	2.1	6.1	
NNE	.0		.3		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	4.7	
NE	.1		.1		.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.5	8.6	
ENE	.0		.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
E	.1		.1		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	4.5	
ESE	.2		.0		.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	4.0	
SE	.3		1.5		.2	.3	.0	.1	.0	.0	.0	.0	.0	.0	2.4	6.8	
SSE	1.2		2.3		.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.1	4.6	
S	2.9		6.4		.9	.2	.0	.0	.0	.0	.0	.0	.0	.0	10.4	4.5	
SSW	3.0		2.9		1.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	7.3	4.7	
SW	3.9		3.0		1.9	.1	.0	.0	.0	.0	.0	.0	.0	.0	8.9	4.5	
WSW	5.1		6.1		4.3	.7	.0	.0	.0	.0	.0	.0	.0	.0	16.2	5.5	
W	3.5		7.4		6.8	2.4	.0	.0	.0	.0	.0	.0	.0	.0	20.1	6.5	
WNW	1.7		3.2		1.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	6.8	5.5	
NW	1.4		4.3		2.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	7.8	5.5	
NNW	1.6		3.4		1.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	6.5	5.1	
VAR	.0		.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CLM	.0		.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.1	.0	
ALL	25.6		42.0		21.1	5.0	.0	.1	.0	.0	.0	.0	.0	.0	100.0	5.1	

TOTAL NO. OF OBS : 960

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

D23239 : ALAMEDA, CA LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 PERIOD OF RECORD : 1955-1986 MONTH : SEP  
 CLASS : ALL WEATHER HOUR : 1300 LST  
 CONDITION : NONE SPECIFIED

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	1	2	3	4	5	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	TOTAL %	MEAN WIND SPEED
N	.1	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	5.6
NNE	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	8.0
NE	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	3.0
ENE	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	10.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	11.3
SSE	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	4.8
S	.0	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	7.4
SSW	.3	.9	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	6.7
SW	.2	1.6	1.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.1	7.9
WSW	1.0	3.3	4.3	2.9	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.7	8.1
W	1.5	5.7	19.8	14.0	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	42.3	9.8
WNW	.2	3.3	10.1	3.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17.3	8.6
NW	.2	4.4	7.8	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.0	7.2
NNW	.1	2.4	2.2	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.1	7.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	.0
ALL	3.7	23.7	45.6	23.2	1.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	8.6

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT < .05

# 1 - SURFACE WINDS

D2239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : 1600 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	1	3	4	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	TOTAL	MEAN
														%	WIND SPEED
N	.1	.1	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.3	9.3
NNE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SE	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	9.5
SSE	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	8.5
S	.2	.1	.3	.1	.3	.1	.0	.0	.0	.0	.0	.0	.0	.7	6.4
SSW	.0	.2	.7	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	1.4	9.5
SW	.0	.1	.6	.6	.6	.2	.2	.1	.0	.0	.0	.0	.0	1.7	11.9
WSW	.1	.7	3.1	4.5	.7	.0	.0	.0	.0	.0	.0	.0	.0	9.2	11.3
W	.1	2.0	21.9	32.4	4.9	.4	.0	.0	.0	.0	.0	.0	.0	61.7	11.8
WNW	.1	2.5	8.3	5.7	.6	.0	.0	.0	.0	.0	.0	.0	.0	17.3	10.0
NW	.2	2.2	2.6	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	5.6	7.6
NNW	.1	.9	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.5	5.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0
ALL	1.0	8.9	38.3	44.4	6.7	.5	.0	.0	.0	.0	.0	.0	.0	100.0	11.0

TOTAL NO. OF OBS : 959

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : 1900 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										TOTAL	MEAN
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55		
N	1.0	2.5	.5	.1	.3	.0	.0	.0	.0	.0	4.5	5.7
NNE	.5	.4	.1	.0	.0	.0	.0	.0	.0	.0	1.0	3.8
NE	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.5	4.6
ENE	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	3.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.1	.1	.0	.1	.0	.0	.0	.0	.0	.3	10.3
SSE	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	7.0
S	.1	.3	.2	.3	.0	.0	.0	.0	.0	.0	.9	7.8
SSW	.4	.0	.2	.1	.0	.0	.0	.0	.0	.0	.7	6.3
SW	.1	.2	1.5	.8	.0	.0	.0	.0	.0	.0	3.3	8.1
WSW	.4	2.2	3.8	2.2	.0	.0	.0	.0	.0	.0	8.6	8.7
W	1.7	8.1	21.8	18.2	1.5	.1	.0	.0	.0	.0	51.4	9.8
WNW	.5	5.6	7.1	3.5	.2	.0	.0	.0	.0	.0	17.0	8.2
NW	.7	2.6	1.8	.1	.0	.0	.0	.0	.0	.0	5.2	6.0
NNW	.3	1.3	.7	.0	.0	.0	.0	.0	.0	.0	2.3	5.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.9	.0
ALL	5.9	24.7	37.9	25.4	2.1	.1	.0	.0	.0	.0	100.0	8.4

TOTAL NO. OF OBS : 959

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : 2200 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.		SPEED (KNOTS)																TOTAL %		MEAN	
1	2	3	4	5	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56							
1	2	3	4	5	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56							
N	1.0	1.4	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.8	6.0					
NNE	.4	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	4.0					
NE	.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	4.2					
ENE	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	3.3					
E	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	2.5					
ESE	.1	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	4.3					
SE	.2	.2	.3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	7.9					
SSE	.3	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	4.4					
S	.6	.8	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.9	4.7					
SSW	.7	1.6	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.7	5.2					
SW	1.9	3.4	2.5	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.1	6.4					
WSW	1.9	4.5	4.7	2.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.5	7.1					
W	3.5	11.4	15.1	7.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	37.3	7.8					
WNW	1.6	3.5	2.7	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.4	6.2					
NW	1.7	2.2	.9	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.0	4.9					
NNW	.5	1.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.9	4.8					
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0					
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.5	.0					
ALL	15.5	31.8	27.5	12.6	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	5.9					

TOTAL NO. OF OBS : 959

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : ALL

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT.	1	- 3	4	- 6	7-10	11-16	17-21	SPEED (KNOTS)							TOTAL	MEAN		
								22-27	28-33	34-40	41-47	48-55	>56	%			SPEED	
DIR.																		
N	1.3		1.3		.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	3.2	5.1	
NNE	.3		.3		.0*	.0*	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.7	4.2	
NE	.2		.2		.0*	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	4.6	
ENE	.1		.1		.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	4.0	
E	.6		.3		.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	3.6	
ESE	.5		.8		.2	.0*	.0*	.0	.0	.0	.0	.0	.0	.0	.0	1.5	4.7	
SE	.3		.6		.2	.1	.0*	.0*	.0	.0	.0	.0	.0	.0	.0	1.3	6.4	
SSE	.7		.5		.3	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	5.2	
S	.8		1.4		.4	.1	.0	.0*	.0	.0	.0	.0	.0	.0	.0	2.7	5.1	
SSW	.8		1.3		.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.0	5.7	
SW	1.3		2.2		1.9	.7	.0*	.0*	.0	.0	.0	.0	.0	.0	.0	6.1	6.5	
WSW	1.6		3.7		4.4	2.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	11.9	7.5	
W	2.4		7.8		14.3	10.2	1.0	.1	.0	.0	.0	.0	.0	.0	.0	35.7	9.0	
WNW	1.5		3.9		4.3	1.8	.1	.0	.0	.0	.0	.0	.0	.0	.0	11.6	7.3	
NW	1.2		2.7		2.1	.3	.0*	.0	.0	.0	.0	.0	.0	.0	.0	6.3	6.0	
NNW	1.1		1.7		.7	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	3.6	5.1	
VAR	.0		.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CLM	.0		.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
ALL	14.2		28.7		30.1	15.9	1.5	.1	.0*	.0	.0	.0	.0	.0	.0	9.5	6.7	

TOTAL NO. OF OBS : 7677

NOTES : \* = PERCENT < .05

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : SEP  
HOUR : 0100 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0	
UNLIMIT	43.6	60.9	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	
>=20000	43.9	61.6	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	
>=18000	44.1	61.8	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	
>=16000	44.2	61.9	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	
>=14000	44.7	62.7	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	
>=12000	45.0	63.6	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	
>=10000	45.1	64.3	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	
>=9000	45.1	64.3	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	
>=8000	45.2	64.7	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	
>=7000	45.2	65.1	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	
>=6000	45.3	65.3	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	
>=5000	45.4	65.4	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	
>=4500	45.5	65.5	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	
>=4000	45.7	66.0	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	
>=3500	45.9	66.2	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	
>=3000	46.2	66.6	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	
>=2500	46.2	67.2	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	
>=2000	47.1	68.4	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	
>=1800	47.4	68.8	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	
>=1500	49.3	72.5	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	
>=1200	50.6	75.9	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	
>=1000	52.4	79.6	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	
>=900	53.0	81.8	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	
>=800	53.8	85.3	85.5	85.5	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	
>=700	54.8	89.4	89.7	89.8	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	
>=600	55.3	92.1	92.7	92.9	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	
>=500	55.7	95.0	95.6	96.0	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	
>=400	55.9	96.6	97.6	98.2	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	
>=300	55.9	97.3	98.6	99.3	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	
>=200	55.9	97.6	99.0	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	
>=100	55.9	97.6	99.0	99.6	99.8	99.8	99.8	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	
>= 0	55.9	97.6	99.0	99.6	99.8	99.8	99.8	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	

TOTAL NO. OF OBS : 955



# 2 - CEILING VS VISIBILITY

023230 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : 0400 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

### VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/4	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	38.3	50.7	50.8	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0
>=20000	38.5	51.4	51.5	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7
>=18000	38.6	51.5	51.6	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8
>=16000	38.6	51.5	51.6	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8
>=14000	39.1	52.0	52.1	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3
>=12000	39.6	52.7	52.8	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
>=10000	40.4	53.7	53.8	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
>=8000	40.4	53.8	53.9	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1
>=6000	40.8	54.6	54.7	54.9	54.9	54.9	54.9	54.9	54.9	54.9	54.9	54.9	54.9	54.9	54.9
>=4000	40.8	55.0	55.1	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3
>=2000	40.9	55.1	55.2	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4
>=5000	41.2	55.4	55.5	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6
>=4000	41.3	55.9	56.0	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2
>=3500	41.3	56.0	56.1	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3
>=3000	41.9	56.8	56.9	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1
>=2500	42.6	58.1	58.2	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4
>=2000	43.6	59.6	59.7	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
>=1800	44.0	60.5	60.6	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9
>=1500	45.8	64.0	64.1	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4
>=1200	47.8	67.6	67.7	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0
>=1000	48.5	72.0	72.1	72.4	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5
>=900	50.4	75.1	75.2	75.5	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7
>=800	51.5	78.8	78.9	79.2	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4
>=700	52.5	83.8	84.0	84.4	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6
>=600	53.0	87.8	88.1	88.6	88.8	88.9	88.9	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0
>=500	53.5	91.4	92.4	93.1	93.4	93.5	93.5	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6
>=450	53.9	94.0	96.0	97.2	97.6	97.7	97.9	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0
>=400	53.8	94.6	96.8	98.3	98.7	98.8	99.1	99.1	99.2	99.2	99.2	99.2	99.2	99.2	99.2
>=350	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=300	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=250	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=200	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=150	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=100	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=50	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=25	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=10	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=5	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=2.5	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=1.5	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=1.0	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.75	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.5	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.25	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.15	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.1	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.075	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.05	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.025	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.015	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.01	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.0075	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.005	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.0025	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.0015	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.001	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.00075	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.0005	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.00025	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.00015	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.0001	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.000075	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.00005	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.000025	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.000015	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.00001	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.0000075	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.000005	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.0000025	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.0000015	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.000001	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0.00000075	53.3	94.8	97.2	98.7	99.4	99.5	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8</

# 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONIH. : SEP  
 HOUR : 0700 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

### VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=2	>=1	1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	24.7	42.3	43.8	44.6	44.6	44.6	44.8	44.8	44.8	44.8	44.8	44.8	44.8	44.8	44.8	44.8	44.8
>=20000	25.0	43.4	44.8	45.7	45.7	45.7	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9
>=18000	25.1	43.6	45.0	45.9	45.9	45.9	46.1	46.1	46.1	46.1	46.1	46.1	46.1	46.1	46.1	46.1	46.1
>=16000	25.2	43.7	45.1	46.0	46.0	46.0	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2
>=14000	25.4	44.2	45.7	46.5	46.5	46.5	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7
>=12000	25.9	45.2	46.7	47.5	47.5	47.5	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8
>=10000	26.6	46.2	47.6	48.5	48.5	48.5	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7
>= 9000	26.8	46.4	47.9	48.7	48.7	48.7	48.9	48.9	48.9	48.9	48.9	48.9	48.9	48.9	48.9	48.9	48.9
>= 8000	27.1	47.0	48.5	49.3	49.3	49.3	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5
>= 7000	27.1	47.2	48.7	49.5	49.5	49.5	49.7	49.7	49.7	49.7	49.7	49.7	49.7	49.7	49.7	49.7	49.7
>= 6000	27.1	47.4	48.9	49.7	49.7	49.7	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.9
>= 5000	27.1	47.5	49.1	49.9	49.9	49.9	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.2
>= 4500	27.2	47.8	49.3	50.2	50.2	50.2	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4
>= 4000	27.2	48.0	49.5	50.4	50.4	50.4	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6
>= 3500	27.3	48.2	49.7	50.6	50.6	50.6	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
>= 3000	27.9	49.2	50.9	51.7	51.7	51.7	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
>= 2500	29.0	50.9	52.6	53.4	53.4	53.4	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6
>= 2000	30.2	52.9	54.5	55.5	55.5	55.5	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8
>= 1800	30.9	54.1	55.8	56.9	57.1	57.1	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
>= 1500	32.3	58.1	59.8	61.0	61.1	61.1	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3
>= 1200	33.5	63.2	64.9	66.2	66.4	66.4	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6
>= 1000	35.9	69.0	71.2	72.6	72.8	72.8	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0
>= 900	36.2	71.7	74.5	76.1	76.3	76.3	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6
>= 800	36.7	75.1	78.3	80.0	80.3	80.3	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6
>= 700	37.1	79.0	82.8	84.5	84.8	84.8	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4
>= 600	37.3	81.4	86.2	88.3	89.0	89.1	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8
>= 500	37.6	83.9	89.9	92.9	94.1	94.4	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1
>= 400	37.6	84.8	91.4	95.1	96.6	97.0	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7
>= 300	37.6	84.8	91.7	95.6	97.6	98.0	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
>= 200	37.6	84.8	91.7	95.6	97.6	98.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1
>= 100	37.6	84.8	91.7	95.6	97.6	98.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1
>= 0	37.6	84.8	91.7	95.6	97.6	98.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1

TOTAL NO. OF OBS : 957

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : SEP  
HOUR : 1000 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=1	3/4	>=5/8	>=1/2	>=5/16
UNLIMIT	28.3	52.7	56.5	59.1	60.9	61.2	61.8	62.0	62.0	62.1	62.1	62.1	62.1	62.1	62.1	62.1
>=20000	29.0	54.2	58.0	60.7	62.5	62.9	63.5	63.7	63.7	63.6	63.6	63.8	63.8	63.8	63.8	63.8
>=18000	29.0	54.3	58.1	60.8	62.7	63.1	63.7	63.9	63.9	64.0	64.0	64.0	64.0	64.0	64.0	64.0
>=16000	29.1	54.4	58.2	60.9	62.8	63.3	63.8	64.0	64.0	64.1	64.1	64.1	64.1	64.1	64.1	64.1
>=14000	29.4	55.0	58.8	61.6	63.5	63.9	64.4	64.6	64.6	64.7	64.7	64.7	64.7	64.7	64.7	64.7
>=12000	29.8	55.8	59.6	62.4	64.3	64.7	65.3	65.5	65.5	65.6	65.6	65.6	65.6	65.6	65.6	65.6
>=10000	30.1	56.4	60.2	63.0	64.9	65.4	65.9	66.1	66.1	66.2	66.2	66.2	66.2	66.2	66.2	66.2
>= 9000	30.1	56.4	60.2	63.0	64.9	65.4	65.9	66.1	66.1	66.2	66.2	66.2	66.2	66.2	66.2	66.2
>= 8000	30.6	57.1	60.9	63.8	65.7	66.1	66.6	66.8	66.8	66.9	66.9	66.9	66.9	66.9	66.9	66.9
>= 7000	30.7	57.2	61.0	63.9	65.8	66.2	66.7	66.9	66.9	67.1	67.1	67.1	67.1	67.1	67.1	67.1
>= 6000	30.7	57.2	61.0	63.9	65.8	66.2	66.7	66.9	66.9	67.1	67.1	67.1	67.1	67.1	67.1	67.1
>= 5000	31.0	57.6	61.4	64.2	66.1	66.5	67.1	67.3	67.3	67.4	67.4	67.4	67.4	67.4	67.4	67.4
>= 4500	31.5	58.1	61.9	64.7	66.6	67.1	67.6	67.8	67.8	67.9	67.9	67.9	67.9	67.9	67.9	67.9
>= 4000	31.6	58.5	62.3	65.2	67.1	67.5	68.0	68.2	68.2	68.3	68.3	68.3	68.3	68.3	68.3	68.3
>= 3500	32.0	59.0	62.8	65.7	67.7	68.1	68.6	68.8	68.8	69.0	69.0	69.0	69.0	69.0	69.0	69.0
>= 3000	32.4	60.0	63.8	66.6	68.6	69.1	69.6	69.8	69.8	69.9	69.9	69.9	69.9	69.9	69.9	69.9
>= 2500	33.3	61.6	65.4	68.2	70.2	70.6	71.2	71.4	71.4	71.5	71.5	71.5	71.5	71.5	71.5	71.5
>= 2000	35.1	64.7	68.7	71.6	73.6	74.0	74.6	74.8	74.8	74.9	74.9	74.9	74.9	74.9	74.9	74.9
>= 1800	35.7	65.7	69.7	72.5	74.6	75.0	75.5	75.7	75.7	75.8	75.8	75.8	75.8	75.8	75.8	75.8
>= 1500	37.0	69.2	73.3	76.1	78.1	78.6	79.1	79.3	79.3	79.4	79.4	79.4	79.4	79.4	79.4	79.4
>= 1200	38.1	73.0	77.1	80.0	82.2	82.6	83.1	83.3	83.3	83.4	83.4	83.4	83.4	83.4	83.4	83.4
>= 1000	39.2	77.1	81.7	84.8	87.1	87.5	88.1	88.3	88.3	88.4	88.4	88.4	88.4	88.4	88.4	88.4
>= 900	39.3	79.4	84.7	88.0	90.3	90.3	91.3	91.7	91.7	91.8	91.8	91.8	91.8	91.8	91.8	91.8
>= 800	39.4	81.8	87.4	90.8	93.2	93.8	94.3	94.6	94.6	94.7	94.7	94.7	94.7	94.7	94.7	94.7
>= 700	39.4	83.2	89.0	92.7	95.4	95.9	96.5	96.8	96.8	96.9	96.9	96.9	96.9	96.9	96.9	96.9
>= 600	39.4	84.4	90.7	94.6	97.5	98.0	98.7	99.0	99.0	99.2	99.2	99.2	99.2	99.2	99.2	99.2
>= 500	39.4	84.5	90.8	95.0	98.1	98.9	99.4	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 400	39.4	84.5	90.8	95.0	98.1	98.9	99.4	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 300	39.4	84.5	90.8	95.0	98.1	98.6	99.4	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 200	39.4	84.5	90.8	95.0	98.1	98.6	99.4	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 100	39.4	84.5	90.8	95.0	98.1	98.6	99.4	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 0	39.4	84.5	90.8	95.0	98.1	98.6	99.4	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 947

# 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : 1300 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1 1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	47.7	77.2	80.0	81.8	82.1	82.1	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3
>=20000	48.2	78.6	81.5	83.5	83.8	83.8	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0
>=18000	48.2	79.0	81.8	83.8	84.1	84.1	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4
>=16000	48.4	79.4	82.2	84.2	84.6	84.6	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8
>=14000	48.9	80.0	82.9	85.0	85.3	85.3	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5
>=12000	49.3	80.8	83.6	85.7	86.2	86.2	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4
>=10000	49.6	81.6	84.5	86.6	87.0	87.0	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2
>=9000	49.6	81.7	84.6	86.7	87.2	87.2	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4
>=8000	49.9	83.0	85.9	88.1	88.7	88.7	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9
>=7000	50.0	83.3	86.3	88.4	89.0	89.0	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2
>=6000	50.1	83.4	86.4	88.5	89.1	89.1	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3
>=5000	50.1	83.6	86.6	88.7	89.3	89.3	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5
>=4500	50.3	83.8	86.8	88.9	89.5	89.5	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7
>=4000	50.5	84.1	87.1	89.3	90.0	90.0	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2
>=3500	50.7	84.5	87.4	89.6	90.3	90.3	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5
>=3000	51.1	85.2	88.3	90.6	91.2	91.2	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4
>=2500	51.6	86.0	89.1	91.4	92.1	92.1	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3
>=2000	52.4	87.7	90.8	93.1	93.8	93.8	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0
>=1800	52.5	88.3	91.3	93.7	94.3	94.3	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5
>=1500	53.1	90.1	93.1	95.5	96.1	96.1	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3
>=1200	53.3	91.2	94.3	96.6	97.3	97.3	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5
>=1000	53.8	92.5	95.7	98.0	98.6	98.6	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8
>=900	53.8	92.8	96.0	98.3	98.9	98.9	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
>=800	53.8	93.1	96.3	98.7	99.4	99.4	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
>=700	53.8	93.2	96.5	98.9	99.6	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=600	53.8	93.4	96.7	99.2	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=500	53.8	93.4	96.7	99.2	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=400	53.8	93.4	96.7	99.2	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=300	53.8	93.4	96.7	99.2	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=200	53.8	93.4	96.7	99.2	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=100	53.8	93.4	96.7	99.2	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=0	53.8	93.4	96.7	99.2	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 946

# 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : 1600 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)																	
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	49.6	83.2	85.4	85.6	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7
>=20000	50.6	85.3	87.5	87.7	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8
>=18000	50.6	85.4	87.6	87.8	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9
>=16000	50.9	85.9	88.1	88.4	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5
>=14000	51.2	86.6	88.9	89.1	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2
>=12000	51.5	87.3	89.6	89.8	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9
>=10000	52.2	88.7	91.1	91.3	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4
>= 9000	52.4	88.9	91.3	91.5	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7
>= 8000	52.9	89.8	92.4	92.6	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8
>= 7000	52.9	90.2	92.7	92.9	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1
>= 6000	52.9	90.3	92.8	93.0	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2
>= 5000	53.3	90.8	93.3	93.5	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8
>= 4500	53.3	90.9	93.4	93.7	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9
>= 4000	53.5	91.5	94.1	94.3	94.5	94.5	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6
>= 3500	53.8	92.0	94.5	94.7	94.9	94.9	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0
>= 3000	53.9	92.1	94.6	94.8	95.0	95.0	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1
>= 2500	54.1	92.5	95.0	95.2	95.4	95.4	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6
>= 2000	54.5	93.7	96.2	96.4	96.6	96.6	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7
>= 1800	54.5	94.1	96.6	96.6	97.0	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1
>= 1500	54.5	94.4	96.9	97.1	97.4	97.4	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5
>= 1200	54.7	95.0	97.7	97.9	98.1	98.1	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2
>= 1000	54.7	95.9	98.5	98.7	98.9	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
>= 900	54.7	96.2	98.8	99.0	99.3	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>= 800	54.7	96.5	99.2	99.4	99.6	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 700	54.7	96.6	99.3	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 600	54.7	96.6	99.3	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 500	54.7	96.6	99.3	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 400	54.7	96.6	99.3	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 300	54.7	96.6	99.3	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 200	54.7	96.6	99.3	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 100	54.7	96.6	99.3	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 0	54.7	96.6	99.3	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7

TOTAL NO. OF OBS : 945

# 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : 1900 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

### VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	47.2	76.8	77.7	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	78.0
>=20000	47.7	78.4	79.3	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.6
>=18000	47.8	78.6	79.5	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.8
>=16000	47.9	78.8	79.8	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.1
>=14000	48.5	79.8	80.9	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.2
>=12000	49.2	80.8	81.8	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.2
>=10000	49.5	81.7	82.9	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.2
>= 9000	49.5	81.7	82.9	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.2
>= 8000	49.8	82.6	83.7	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	84.1
>= 7000	50.2	83.0	84.2	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.5
>= 6000	50.3	83.2	84.4	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.7
>= 5000	50.5	83.5	84.7	84.9	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.1
>= 4500	50.6	83.6	84.8	85.0	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.2
>= 4000	50.6	83.7	84.9	85.1	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.3
>= 3500	50.8	83.9	85.1	85.3	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.5
>= 3000	50.9	84.3	85.4	85.6	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.9
>= 2500	51.1	84.6	85.7	86.0	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.2
>= 2000	51.3	85.3	86.5	86.7	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.9
>= 1800	51.5	85.5	86.7	86.9	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.1
>= 1500	51.8	86.5	87.6	87.9	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.1
>= 1200	52.2	87.6	89.0	89.2	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.4
>= 1000	52.5	88.9	90.3	90.5	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.7
>= 900	52.6	90.0	91.3	91.6	91.7	91.7	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.9
>= 800	52.6	91.4	92.9	93.1	93.2	93.2	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.6
>= 700	52.7	93.3	94.9	95.1	95.2	95.2	95.4	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.6
>= 600	52.9	95.5	97.5	98.0	98.1	98.1	98.2	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.4
>= 500	52.9	96.1	98.6	99.3	99.4	99.4	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.7
>= 400	52.9	96.2	98.9	99.6	99.7	99.7	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100.0
>= 300	52.9	96.2	98.9	99.6	99.7	99.7	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100.0
>= 200	52.9	96.2	98.9	99.6	99.7	99.7	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100.0
>= 100	52.9	96.2	98.9	99.6	99.7	99.7	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100.0
>= 0	52.9	96.2	98.9	99.6	99.7	99.7	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100.0

TOTAL NO. OF OBS : 947

# 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONIH. : SEP  
 HOUR : 2200 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

### VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	49.3	69.9	70.3	70.3	70.3	70.4	70.4	70.4	70.4	70.4	70.4	70.5	70.5	70.5	70.5	70.5	70.5	70.5
>=20000	49.5	71.2	71.6	71.6	71.6	71.7	71.7	71.7	71.7	71.7	71.7	71.8	71.8	71.8	71.8	71.8	71.8	71.8
>=18000	49.5	71.2	71.6	71.6	71.6	71.7	71.7	71.7	71.7	71.7	71.7	71.8	71.8	71.8	71.8	71.8	71.8	71.8
>=16000	49.7	71.5	72.0	72.0	72.0	72.1	72.1	72.1	72.1	72.1	72.1	72.2	72.2	72.2	72.2	72.2	72.2	72.2
>=14000	50.0	72.1	72.6	72.6	72.6	72.7	72.7	72.7	72.7	72.7	72.7	72.9	72.9	72.9	72.9	72.9	72.9	72.9
>=12000	50.3	73.0	73.5	73.5	73.5	73.6	73.6	73.6	73.6	73.6	73.6	73.7	73.7	73.7	73.7	73.7	73.7	73.7
>=10000	50.7	73.7	74.3	74.3	74.3	74.4	74.4	74.4	74.4	74.4	74.4	74.5	74.5	74.5	74.5	74.5	74.5	74.5
>= 9000	50.7	73.7	74.3	74.3	74.3	74.4	74.4	74.4	74.4	74.4	74.4	74.5	74.5	74.5	74.5	74.5	74.5	74.5
>= 8000	51.0	74.5	75.2	75.3	75.3	75.4	75.4	75.4	75.4	75.4	75.4	75.5	75.5	75.5	75.5	75.5	75.5	75.5
>= 7000	51.2	74.6	75.3	75.4	75.4	75.5	75.5	75.5	75.5	75.5	75.5	75.6	75.6	75.6	75.6	75.6	75.6	75.6
>= 6000	51.3	74.7	75.4	75.5	75.5	75.6	75.6	75.6	75.6	75.6	75.6	75.7	75.7	75.7	75.7	75.7	75.7	75.7
>= 5000	51.7	75.3	75.9	76.0	76.0	76.1	76.1	76.1	76.1	76.1	76.1	76.2	76.2	76.2	76.2	76.2	76.2	76.2
>= 4500	51.7	75.3	75.9	76.0	76.0	76.1	76.1	76.1	76.1	76.1	76.1	76.2	76.2	76.2	76.2	76.2	76.2	76.2
>= 4000	51.7	75.5	76.1	76.2	76.2	76.3	76.3	76.3	76.3	76.3	76.3	76.4	76.4	76.4	76.4	76.4	76.4	76.4
>= 3500	51.9	75.7	76.3	76.4	76.4	76.5	76.5	76.5	76.5	76.5	76.5	76.6	76.6	76.6	76.6	76.6	76.6	76.6
>= 3000	52.2	76.3	76.9	77.0	77.0	77.1	77.1	77.1	77.1	77.1	77.1	77.3	77.3	77.3	77.3	77.3	77.3	77.3
>= 2500	52.6	76.7	77.4	77.5	77.5	77.6	77.6	77.6	77.6	77.6	77.6	77.7	77.7	77.7	77.7	77.7	77.7	77.7
>= 2000	52.9	77.1	77.8	77.9	77.9	78.0	78.0	78.0	78.0	78.0	78.0	78.1	78.1	78.1	78.1	78.1	78.1	78.1
>= 1800	53.1	77.5	78.1	78.2	78.2	78.3	78.3	78.3	78.3	78.3	78.3	78.4	78.4	78.4	78.4	78.4	78.4	78.4
>= 1500	53.9	79.2	80.0	80.1	80.1	80.2	80.2	80.2	80.2	80.2	80.2	80.3	80.3	80.3	80.3	80.3	80.3	80.3
>= 1200	54.7	81.1	81.9	82.0	82.0	82.1	82.1	82.1	82.1	82.1	82.1	82.2	82.2	82.2	82.2	82.2	82.2	82.2
>= 1000	55.5	83.9	84.6	84.7	84.7	84.8	84.8	84.8	84.8	84.8	84.8	84.9	84.9	84.9	84.9	84.9	84.9	84.9
>= 900	56.3	85.7	86.5	86.6	86.6	86.7	86.7	86.7	86.7	86.7	86.7	86.8	86.8	86.8	86.8	86.8	86.8	86.8
>= 800	56.6	87.8	88.6	88.7	88.7	88.8	88.8	88.8	88.8	88.8	88.8	88.9	88.9	88.9	88.9	88.9	88.9	88.9
>= 700	56.8	90.5	91.3	91.4	91.5	91.6	91.6	91.6	91.6	91.6	91.6	91.7	91.7	91.7	91.7	91.7	91.7	91.7
>= 600	57.1	93.3	94.2	94.4	94.7	94.8	94.8	94.8	94.8	94.8	94.8	94.9	94.9	94.9	94.9	94.9	94.9	94.9
>= 500	57.4	95.6	96.8	97.2	97.4	97.5	97.5	97.5	97.5	97.5	97.5	97.6	97.6	97.6	97.6	97.6	97.6	97.6
>= 400	57.4	97.0	98.4	99.1	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>= 300	57.4	97.3	98.7	99.4	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 200	57.4	97.4	98.8	99.5	99.7	99.9	99.9	99.9	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 100	57.4	97.4	98.8	99.5	99.7	99.9	99.9	99.9	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 0	57.4	97.4	98.8	99.5	99.7	99.9	99.9	99.9	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 954

# 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : ALL

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1 1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	41.1	64.2	65.7	66.4	66.7	66.7	66.8	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9
>=20000	41.5	65.4	66.9	67.7	68.0	68.0	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2
>=18000	41.6	65.6	67.1	67.9	68.1	68.2	68.3	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4
>=16000	41.7	65.8	67.3	68.1	68.4	68.5	68.6	68.6	68.6	68.6	68.6	68.6	68.6	68.6	68.6	68.6
>=14000	42.1	66.5	68.0	68.8	69.1	69.2	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3
>=12000	42.6	67.3	68.9	69.7	70.0	70.0	70.1	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2
>=10000	43.0	68.2	69.8	70.6	70.9	71.0	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1
>= 9000	43.1	68.3	69.9	70.7	71.0	71.1	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2
>= 8000	43.4	69.1	70.7	71.5	71.9	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1
>= 7000	43.5	69.4	71.0	71.8	72.2	72.2	72.3	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4
>= 6000	43.6	69.5	71.1	71.9	72.3	72.4	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5
>= 5000	43.8	69.8	71.4	72.3	72.6	72.7	72.8	72.8	72.8	72.8	72.9	72.9	72.9	72.9	72.9	72.9
>= 4500	43.9	70.1	71.7	72.5	72.8	72.9	73.0	73.0	73.0	73.1	73.1	73.1	73.1	73.1	73.1	73.1
>= 4000	44.0	70.3	71.9	72.8	73.1	73.2	73.3	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4
>= 3500	44.2	70.6	72.2	73.1	73.4	73.5	73.6	73.6	73.6	73.7	73.7	73.7	73.7	73.7	73.7	73.7
>= 3000	44.5	71.3	72.9	73.7	74.1	74.2	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3
>= 2500	45.1	72.1	73.8	74.6	75.0	75.0	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2
>= 2000	45.9	73.6	75.3	76.2	76.5	76.6	76.7	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8
>= 1800	46.2	74.2	75.9	76.8	77.2	77.3	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4
>= 1500	47.2	76.7	78.4	79.3	79.7	79.7	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9
>= 1200	48.1	79.1	81.0	82.0	82.4	82.4	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6
>= 1000	49.2	82.3	84.2	85.1	85.6	85.7	85.8	85.8	85.8	85.9	85.9	85.9	85.9	85.9	85.9	85.9
>= 900	49.5	84.1	86.1	87.1	87.6	87.6	87.8	87.8	87.8	87.9	87.9	87.9	87.9	87.9	87.9	87.9
>= 800	49.9	86.2	88.4	89.4	89.9	90.0	90.1	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2
>= 700	50.2	88.6	90.9	92.0	92.6	92.7	92.8	92.9	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0
>= 600	50.4	90.5	93.2	94.4	95.0	95.1	95.4	95.4	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5
>= 500	50.6	92.1	95.0	96.5	97.2	97.4	97.6	97.7	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8
>= 400	50.7	92.9	96.1	97.8	98.6	98.8	99.0	99.1	99.1	99.2	99.2	99.2	99.2	99.2	99.2	99.2
>= 300	50.7	93.1	96.5	98.2	99.1	99.2	99.5	99.6	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 200	50.7	93.2	96.6	98.3	99.2	99.4	99.7	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 100	50.7	93.2	96.6	98.3	99.2	99.4	99.7	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 0	50.7	93.2	96.6	98.3	99.2	99.4	99.7	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9

TOTAL NO. OF OBS : 7607



# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 0100 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										TOTAL	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	#	
N	2.5	2.6	1.1	.5	.5	.2	.0	.0	.0	.0	7.5	6.4
NNE	.8	1.0	.1	.0	.0	.0	.0	.0	.0	.0	1.9	3.8
NE	.7	.1	.2	.3	.0	.0	.0	.0	.0	.0	1.3	5.2
ENE	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.7	3.0
E	2.4	1.2	.1	.0	.0	.0	.0	.0	.0	.0	3.7	3.3
ESE	2.1	3.5	.6	.1	.0	.1	.0	.0	.0	.0	6.5	4.8
SE	.9	2.4	.5	.7	.1	.0	.0	.0	.0	.0	4.6	6.3
SSE	.9	.7	.5	.4	.3	.0	.0	.0	.0	.0	2.8	7.1
S	.8	1.3	.3	.4	.0	.1	.0	.0	.0	.0	2.9	6.4
SSW	.5	1.5	.4	.1	.0	.0	.0	.0	.0	.0	2.5	5.0
SW	1.2	2.1	.9	.3	.0	.0	.0	.0	.0	.0	4.5	5.4
WSW	.5	2.9	2.3	.5	.0	.0	.0	.0	.0	.0	6.3	6.7
W	2.9	7.0	6.1	2.0	.1	.0	.0	.0	.0	.0	18.1	6.5
WNW	1.6	2.9	1.1	.6	.0	.0	.0	.0	.0	.0	6.3	5.5
NW	1.0	1.8	.9	.3	.1	.0	.0	.0	.0	.0	4.1	6.0
NNW	1.8	1.6	.8	.0	.0	.0	.0	.0	.0	.0	5.0	5.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	21.2	.0
ALL	21.2	33.1	16.0	7.1	1.1	.4	.0	.0	.0	.0	100.0	4.6

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 0400 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT.		SPEED (KNOTS)																TOTAL		MEAN	
DIR.		1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	Σ			Σ					
N		4.2	3.4	1.9	1.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	10.8	5.4					
NNE		2.1	1.3	.4	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	3.9	4.3					
NE		1.5	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.8	3.0					
ENE		.6	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3	3.7					
E		3.2	2.2	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.9	3.9					
ESE		2.3	3.4	1.1	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	7.3	5.2					
SE		1.9	1.7	.7	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.0	5.5					
SSE		.4	.7	.5	.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	2.1	8.3					
S		.2	.8	.8	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	2.1	7.4					
SSW		.6	.7	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	5.4					
SW		1.1	2.2	.8	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.3	5.2					
WSW		1.1	2.2	1.0	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	4.8	5.9					
W		1.9	5.1	5.9	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.5	6.4					
WNW		1.9	2.8	1.5	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	6.5	5.3					
NW		1.1	1.7	.6	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	3.7	5.2					
NNW		1.4	1.8	1.2	.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	5.4	6.7					
VAR		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0					
CLM		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19.7	.0					
ALL		25.7	30.9	17.4	4.7	1.1	.4	.0	.0	.0	.0	.0	.0	.0	100.0	4.4					

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 0700 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	1	3	4	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL	MEAN
N	3.3	4.4	1.2	.6	.2	.1	.0	.0	.0	.0	.0	.0	.0	9.9	5.4
NNE	.7	1.4	.6	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	2.8	5.4
NE	1.1	.7	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.3	4.5
ENE	.6	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3	4.1
E	2.8	1.6	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.9	3.8
ESE	2.7	4.3	1.8	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	9.4	5.2
SE	1.0	2.0	1.5	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	5.2	6.4
SSE	.1	.9	.3	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	1.9	8.9
S	.9	1.6	.6	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	3.3	5.5
SSW	.7	1.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.3	5.3
SW	.7	2.4	1.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.5	5.8
WSW	.8	2.7	1.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.1	6.2
W	1.0	4.0	3.1	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.9	6.5
WNW	1.1	2.3	1.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.6	5.3
NW	1.6	1.6	.4	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	3.9	5.0
NNW	2.4	2.9	1.0	.6	.5	.0	.0	.0	.0	.0	.0	.0	.0	7.5	6.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	22.0	.0
ALL	21.7	34.8	15.1	4.7	1.5	.2	.0	.0	.0	.0	.0	.0	.0	100.0	4.4

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 1000 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT.		SPEED (KNOTS)												TOTAL		MEAN
DIR.		1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	%		SPEED	
N		1.2	2.3	1.4	.8	.2	.3	.1	.0	.0	.0	.0	6.4	7.7		
NNE		.2	.3	.1	.1	.2	.0	.0	.0	.0	.0	.0	.9	8.7		
NE		.1	.1	.3	.2	.1	.0	.0	.0	.0	.0	.0	.8	9.3		
ENE		.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.2	14.5		
E		.4	.2	.3	.1	.0	.0	.0	.0	.0	.0	.0	1.0	5.4		
ESE		.4	.3	.6	.5	.1	.0	.0	.0	.0	.0	.0	1.9	8.3		
SE		.8	2.1	.6	.8	.1	.0	.0	.0	.0	.0	.0	4.4	6.9		
SSE		2.5	3.1	.9	.2	.1	.0	.0	.0	.0	.0	.0	6.9	4.9		
S		5.8	4.9	1.6	.3	.0	.2	.0	.0	.0	.0	.0	12.9	4.6		
SSW		2.2	2.4	.1	.3	.0	.0	.0	.0	.0	.0	.0	5.0	4.3		
SW		2.5	3.4	.5	.1	.0	.0	.0	.0	.0	.0	.0	6.6	4.2		
WSW		3.0	3.1	1.4	.5	.0	.0	.0	.0	.0	.0	.0	8.1	5.0		
W		2.9	4.4	4.1	.5	.1	.0	.0	.0	.0	.0	.0	12.1	5.7		
WNW		.9	2.9	1.4	.1	.2	.0	.0	.0	.0	.0	.0	5.4	6.1		
NW		2.0	3.5	1.8	.4	.0	.0	.0	.0	.0	.0	.0	7.8	5.2		
NNW		1.6	5.0	2.1	1.1	.3	.0	.0	.0	.0	.0	.0	10.2	6.5		
VAR		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CLM		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.5	.0		
ALL		26.7	38.2	17.4	6.0	1.5	.5	.1	.0	.0	.0	.0	100.0	5.1		

TOTAL NO. OF OBS :

992

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 49W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 1300 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.		SPEED (KNOTS)											TOTAL %	MEAN	
		1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56		WIND	SPEED
N	.1	1.1	.7	.4	.4	.4	.2	.0	.0	.0	.0	.0	2.9	10.4	
NNE	.0	.2	.4	.2	.1	.0	.0	.0	.0	.0	.0	.0	.9	10.2	
NE	.0	.1	.3	.1	.0	.1	.0	.0	.0	.0	.0	.0	.6	11.5	
ENE	.1	.0	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.4	9.0	
E	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	7.0	
ESE	.0	.1	.3	.0	.0	.1	.0	.0	.0	.0	.0	.0	.5	10.2	
SE	.1	.3	.4	.4	.1	.0	.0	.0	.0	.0	.0	.0	1.3	9.4	
SSE	.7	1.0	.1	.2	.1	.0	.0	.0	.0	.0	.0	.0	2.1	5.4	
S	1.3	1.6	.5	.2	.2	.1	.0	.0	.0	.0	.0	.0	3.9	6.1	
SSW	1.6	1.5	.9	.6	.0	.1	.0	.0	.0	.0	.0	.0	4.7	6.1	
SW	1.5	2.1	.6	.5	.0	.0	.0	.0	.0	.0	.0	.0	4.7	5.3	
WSW	2.3	4.0	3.3	1.6	.0	.0	.0	.0	.0	.0	.0	.0	11.3	6.6	
W	1.0	7.0	11.7	5.4	.4	.2	.0	.0	.0	.0	.0	.0	26.6	8.3	
WNW	1.0	3.6	6.7	1.2	.1	.1	.0	.0	.0	.0	.0	.0	12.7	7.6	
NW	.5	6.8	6.5	1.1	.0	.0	.0	.0	.0	.0	.0	.0	14.8	6.9	
NNW	.5	4.3	4.6	.6	.0	.0	.0	.0	.0	.0	.0	.0	10.1	6.7	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	.0	
ALL	11.7	33.9	37.2	12.8	1.4	.9	.0	.0	.0	.0	.0	.0	100.0	7.2	

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 1600 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	1	2	3	4	5	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	TOTAL		MEAN
																#		WIND SPEED
N	.0	.0	.3	.4	.7	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.8	12.6	
NNE	.0	.0	.1	.2	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.5	11.6	
NE	.1	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	5.3	
ENE	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	10.0	
E	.1	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	5.3	
ESE	.1	.3	.1	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	8.0	
SE	.0	.0	.0	.1	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	11.0	
SSE	.1	.1	.1	.1	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.6	11.0	
S	.2	.1	.1	.6	.6	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.8	11.2	
SSW	.2	.4	.7	.7	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2	8.8	
SW	.2	1.1	1.0	1.0	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.7	7.3	
WSW	.3	1.4	3.2	3.2	1.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.8	8.9	
W	.6	4.9	24.2	19.5	1.1	1.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	50.4	10.2	
WNW	.1	3.4	9.7	4.4	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	17.9	9.3	
NW	.5	3.3	3.9	.4	.4	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	8.3	7.1	
NNW	.2	1.6	.9	.4	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.2	7.3	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.5	.0	
ALL	2.8	17.3	45.6	29.6	2.5	.6	.6	.0	.0	.0	.0	.0	.0	.0	.0	100.0	9.4	

TOTAL NO. OF OBS : 992

NOTES :  
 # = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 1900 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

DIP.	SPEED (KNOTS)												TOTAL %	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56			
N	1.1	2.4	1.0	.4	.0	.1	.0	.0	.0	.0	.0	5.0	5.8	
NNE	1.7	.5	.3	.1	.0	.0	.0	.0	.0	.0	.0	2.2	4.4	
NE	.4	1.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.6	4.0	
NNE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
E	.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	4.8	
ESE	.0	.1	.3	.4	.0	.0	.0	.0	.0	.0	.0	.8	8.0	
SE	.1	.2	.3	.1	.2	.0	.0	.0	.0	.0	.0	.9	9.9	
SSE	.2	.0	.0	.4	.2	.0	.0	.0	.0	.0	.0	.8	12.0	
S	.4	.3	.3	.6	.3	.2	.0	.0	.0	.0	.0	2.1	10.8	
SSW	.1	.7	.7	.5	.0	.0	.0	.0	.0	.0	.0	2.0	8.2	
SW	.0	1.4	.7	.2	.0	.0	.0	.0	.0	.0	.0	3.1	5.5	
WSW	1.0	1.9	3.2	1.4	.2	.0	.0	.0	.0	.0	.0	7.8	7.9	
W	2.9	9.9	16.2	7.6	.2	.0	.0	.0	.0	.0	.0	36.8	8.1	
WNW	2.1	5.3	5.7	1.6	.2	.0	.0	.0	.0	.0	.0	15.0	6.9	
W	1.4	3.4	1.9	.4	.1	.0	.0	.0	.0	.0	.0	7.2	5.9	
NNW	1.7	2.3	1.6	.8	.2	.0	.0	.0	.0	.0	.0	6.3	6.7	
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.0	.0	
ALL	13.5	24.9	32.2	14.5	1.6	.3	.0	.0	.0	.0	.0	100.0	6.8	

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 2200 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	SPEED (KNOTS)										TOTAL %	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	
N	2.6	3.0	1.3	.8	.2	.0	.1	.0	.0	.0	8.1	5.9
NNE	.7	.6	.0	.3	.0	.0	.0	.0	.0	.0	1.6	5.1
NE	.8	.4	.0	.0	.0	.0	.0	.0	.0	.0	1.2	3.0
ENE	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.8	2.8
E	.9	.6	.1	.0	.0	.0	.0	.0	.0	.0	1.5	4.0
ESE	1.1	.8	.2	.1	.1	.0	.0	.0	.0	.0	2.3	5.0
SE	.5	.6	.6	.3	.1	.0	.0	.0	.0	.0	2.1	7.2
SSE	.1	.3	.1	.5	.1	.0	.0	.0	.0	.0	1.1	10.6
S	1.1	.6	.6	.9	.2	.0	.0	.0	.0	.0	3.4	7.7
SSW	.7	.6	.7	.0	.0	.0	.0	.0	.0	.0	1.5	6.9
SW	1.1	2.9	1.3	.4	.0	.1	.0	.0	.0	.0	5.9	5.8
WSW	1.0	3.4	2.8	1.1	.0	.0	.0	.0	.0	.0	8.4	6.8
W	3.2	8.3	8.2	2.0	.0	.0	.0	.0	.0	.0	21.7	6.6
WNW	2.2	3.4	2.2	.7	.0	.0	.0	.0	.0	.0	8.6	5.9
NW	2.1	1.7	1.5	.9	.1	.0	.0	.0	.0	.0	6.4	6.2
NNW	1.2	2.0	.8	.7	.1	.0	.0	.0	.0	.0	4.8	6.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20.6	.0
ALL	19.4	29.7	20.5	8.8	.9	.1	.1	.0	.0	.0	100.0	5.0

TOTAL NO. OF OBS : 991

NOTES : \* = PERCENT < .05



# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : ALL

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	SPEED (KNOTS)										TOTAL %	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	
N	1.9	2.5	1.1	.7	.3	.1	.0*	.0	.0	.0	.0	6.5
NNE	.7	.7	.3	.1	.1	.0*	.0	.0	.0	.0	.0	1.9
NE	.6	.4	.2	.1	.0*	.0*	.0	.0	.0	.0	.0	1.2
ENE	.3	.2	.1	.0*	.0*	.0	.0	.0	.0	.0	.0	.6
E	1.2	.8	.2	.0*	.0	.0	.0	.0	.0	.0	.0	2.3
ESE	1.1	1.6	.6	.2	.1	.0*	.0	.0	.0	.0	.0	3.7
SE	.7	1.2	.6	.5	.1	.0	.0	.0	.0	.0	.0	3.0
SSE	.6	.9	.3	.3	.2	.0*	.0	.0	.0	.0	.0	2.3
S	1.3	1.4	.7	.4	.1	.1	.0	.0	.0	.0	.0	4.1
SSW	.9	1.1	.5	.3	.0	.0*	.0	.0	.0	.0	.0	2.8
SW	1.1	2.2	.9	.3	.0*	.0	.0	.0	.0	.0	.0	4.5
WSW	1.7	2.7	2.3	1.0	.1	.0	.0	.0	.0	.0	.0	7.3
W	2.2	6.3	10.0	4.8	.2	.0*	.0	.0	.0	.0	.0	23.5
WNW	1.4	3.3	3.7	1.1	.1	.0*	.0	.0	.0	.0	.0	9.6
NW	1.3	3.0	2.2	.5	.1	.0*	.0	.0	.0	.0	.0	7.0
NNW	1.7	2.7	1.6	.7	.2	.0	.0	.0	.0	.0	.0	6.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.1
ALL	17.8	31.0	25.2	11.0	1.5	.4	.0*	.0	.0	.0	.0	100.0

TOTAL NO. OF OBS : 7035

NOTES :  
 \* = PERCENT < .05

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 0100 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1 1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	39.7	62.9	63.9	64.5	64.8	64.9	65.4	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5
>=20000	40.3	64.0	65.1	65.7	66.0	66.1	66.6	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7
>=18000	40.7	64.4	65.5	66.1	66.4	66.5	67.0	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1
>=16000	40.7	64.4	65.5	66.1	66.4	66.5	67.0	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1
>=14000	41.3	65.1	66.2	66.8	67.1	67.2	67.7	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8
>=12000	42.1	66.3	67.5	68.2	68.5	68.6	69.1	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2
>=10000	42.7	67.0	68.3	68.9	69.2	69.3	69.8	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9
>= 9000	42.7	67.1	68.4	69.0	69.3	69.4	69.9	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
>= 8000	43.6	68.5	69.7	70.3	70.6	70.7	71.2	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3
>= 7000	43.8	68.8	70.0	70.6	70.9	71.0	71.5	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6
>= 6000	44.0	69.1	70.3	70.9	71.2	71.3	71.8	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9
>= 5000	44.3	69.5	70.8	71.4	71.7	71.8	72.3	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4
>= 4500	44.7	70.3	71.6	72.2	72.5	72.6	73.1	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2
>= 4000	45.0	71.1	72.4	73.0	73.3	73.4	73.9	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0
>= 3500	45.2	71.4	72.7	73.3	73.6	73.7	74.2	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3
>= 3000	45.8	72.5	73.8	74.4	74.7	74.9	75.5	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6
>= 2500	46.3	73.3	74.6	75.3	75.6	75.8	76.3	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4
>= 2000	47.3	74.9	76.3	76.9	77.2	77.4	77.9	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
>= 1800	47.5	75.8	77.1	77.7	78.0	78.2	78.7	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8
>= 1500	48.9	78.2	79.5	80.1	80.4	80.6	81.1	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2
>= 1200	49.5	80.7	82.0	82.8	83.1	83.3	83.8	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9
>= 1000	50.1	84.0	85.6	86.3	86.6	86.8	87.3	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5
>= 900	50.4	86.1	87.7	88.4	88.7	88.9	89.5	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7
>= 800	50.7	88.0	89.7	90.4	90.7	90.9	91.5	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7
>= 700	50.9	89.4	91.5	92.2	92.7	92.9	93.5	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7
>= 600	51.2	91.0	93.5	94.2	94.8	95.0	95.6	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8
>= 500	51.3	91.7	94.4	95.3	95.9	96.1	96.9	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2
>= 400	51.3	92.4	95.3	96.8	97.7	97.9	98.7	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
>= 300	51.4	92.6	95.5	97.0	98.0	98.2	99.1	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>= 200	51.4	92.6	95.5	97.0	98.0	98.2	99.1	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>= 100	51.4	92.6	95.5	97.0	98.0	98.2	99.1	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>= 0	51.4	92.6	95.5	97.0	98.0	98.2	99.1	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4

TOTAL NO. OF OBS : 986

# 2 - CEILING VS VISIBILITY

Q23239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 0400 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1
UNLIMIT	35.2	56.1	57.3	58.1	58.5	58.6	58.8	59.0	59.0	59.0
>=20000	35.6	57.2	58.5	59.2	59.7	59.8	60.0	60.2	60.2	60.2
>=18000	35.7	57.6	58.9	59.6	60.1	60.2	60.4	60.6	60.6	60.6
>=16000	35.7	57.6	58.9	59.6	60.1	60.2	60.4	60.6	60.6	60.6
>=14000	35.9	58.0	59.2	59.9	60.4	60.5	60.7	60.9	60.9	60.9
>=12000	36.5	59.2	60.5	61.2	61.7	61.8	62.0	62.2	62.2	62.2
>=10000	37.1	60.5	61.8	62.5	63.0	63.1	63.3	63.5	63.5	63.5
>=9000	37.3	60.8	62.1	62.8	63.3	63.4	63.6	63.8	63.8	63.8
>=8000	37.8	61.7	63.0	63.7	64.2	64.3	64.5	64.7	64.7	64.7
>=7000	37.9	61.9	63.2	63.9	64.4	64.5	64.7	64.9	64.9	64.9
>=6000	38.0	62.2	63.5	64.2	64.7	64.8	65.0	65.2	65.2	65.2
>=5000	38.3	62.5	63.8	64.5	65.0	65.1	65.3	65.6	65.6	65.6
>=4500	38.7	63.0	64.3	65.0	65.6	65.7	65.9	66.1	66.1	66.1
>=4000	39.0	63.6	64.9	65.7	66.2	66.3	66.5	66.7	66.7	66.7
>=3500	39.3	64.0	65.3	66.1	66.6	66.7	66.9	67.1	67.1	67.1
>=3000	39.8	64.8	66.2	66.9	67.5	67.6	67.8	68.1	68.1	68.1
>=2500	40.6	66.5	67.8	68.5	69.1	69.2	69.4	69.7	69.7	69.7
>=2000	41.5	68.1	69.5	70.2	70.9	70.9	71.1	71.4	71.4	71.4
>=1800	41.8	69.0	70.4	71.1	71.7	71.8	72.0	72.3	72.3	72.3
>=1500	43.4	72.0	73.5	74.3	75.0	75.1	75.4	75.7	75.7	75.7
>=1200	44.3	75.9	77.3	78.1	78.8	78.9	79.2	79.5	79.5	79.5
>=1000	45.2	79.5	81.1	82.0	82.7	82.8	83.2	83.5	83.5	83.5
>=900	45.7	81.4	82.9	84.0	84.9	85.0	85.5	85.8	85.8	85.8
>=800	46.1	83.9	85.5	86.6	87.5	87.5	88.1	88.4	88.4	88.4
>=700	46.5	85.7	87.6	88.8	89.9	90.0	90.5	90.8	90.8	90.8
>=600	47.2	88.0	90.2	91.5	92.6	92.7	93.4	93.7	93.7	93.7
>=500	47.3	88.7	91.2	92.7	93.9	94.0	94.7	95.0	95.0	95.0
>=400	47.4	89.4	92.4	94.1	95.6	95.8	96.9	97.2	97.2	97.2
>=300	47.4	89.4	92.5	94.2	95.8	96.3	97.5	98.0	98.2	98.3
>=200	47.4	89.6	92.7	94.4	96.1	96.6	97.8	98.4	98.6	98.9
>=100	47.4	89.6	92.7	94.4	96.1	96.6	97.8	98.4	98.7	99.0
>=0	47.4	89.6	92.7	94.4	96.1	96.6	97.8	98.4	98.7	99.0

TOTAL NO. OF OBS : 987

# 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 0700 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1 1/4	>=1
UNLIMIT	26.6	47.2	50.8	52.5	53.8	54.0	54.3	54.5	54.5	54.5
>=20000	27.2	48.5	52.3	53.9	55.2	55.4	55.7	56.0	56.0	56.0
>=18000	27.2	49.0	52.8	54.4	55.7	56.0	56.3	56.5	56.5	56.5
>=16000	27.2	49.0	52.8	54.4	55.7	56.0	56.3	56.5	56.5	56.5
>=14000	27.6	49.7	53.5	55.1	56.5	56.7	57.0	57.2	57.2	57.2
>=12000	28.4	51.4	55.3	57.0	58.3	58.5	58.8	59.0	59.0	59.0
>=10000	29.4	53.0	57.0	58.6	60.0	60.2	60.5	60.7	60.7	60.7
>= 9000	29.5	53.3	57.3	58.9	60.3	60.5	60.8	61.0	61.0	61.0
>= 8000	29.6	54.1	58.1	59.8	61.1	61.3	61.6	61.8	61.8	61.8
>= 7000	29.9	54.7	58.8	60.5	61.9	62.1	62.4	62.6	62.6	62.6
>= 6000	30.0	55.1	59.2	60.9	62.3	62.5	62.8	63.0	63.0	63.0
>= 5000	30.2	55.3	59.4	61.1	62.5	62.7	63.0	63.2	63.2	63.2
>= 4500	30.3	55.5	59.8	61.4	62.8	63.0	63.3	63.6	63.6	63.6
>= 4000	30.3	56.2	60.5	62.1	63.6	63.8	64.1	64.3	64.3	64.3
>= 3500	30.7	56.8	61.1	62.7	64.2	64.4	64.7	64.9	64.9	64.9
>= 3000	30.8	57.1	61.4	63.0	64.5	64.7	65.1	65.3	65.3	65.3
>= 2500	31.4	58.8	63.1	65.0	66.4	66.6	67.0	67.2	67.2	67.2
>= 2000	32.0	60.7	65.1	66.9	68.4	68.6	69.1	69.3	69.3	69.3
>= 1800	32.2	61.4	65.8	67.8	69.2	69.4	69.7	69.9	69.9	69.9
>= 1600	33.3	64.5	69.0	70.9	72.5	72.7	73.3	73.5	73.5	73.5
>= 1200	34.0	67.5	72.2	74.3	76.1	76.3	76.9	77.1	77.1	77.1
>= 1000	34.9	70.7	75.8	78.0	79.9	80.1	80.7	80.9	80.9	80.9
>= 900	35.1	72.3	77.6	80.1	82.0	82.2	83.0	83.2	83.2	83.2
>= 800	35.5	74.7	80.6	83.5	85.4	85.6	86.4	86.8	86.8	86.8
>= 700	35.5	75.4	81.5	84.8	86.9	87.1	88.1	88.4	88.4	88.4
>= 600	35.5	76.1	82.8	85.2	88.4	88.6	89.7	90.0	90.0	90.0
>= 500	35.6	77.0	84.7	88.3	90.6	90.8	92.2	92.5	92.5	92.5
>= 400	35.6	77.6	85.5	89.7	92.4	92.7	94.8	95.1	95.1	95.1
>= 300	35.6	77.6	85.5	89.7	92.7	92.7	95.2	95.8	95.8	95.8
>= 200	35.6	77.6	85.6	89.8	92.9	93.2	95.4	96.0	96.1	96.1
>= 100	35.6	77.6	85.6	89.8	92.9	93.2	95.4	96.0	96.1	96.1
>= 0	35.6	77.6	85.6	89.8	92.9	93.2	95.4	96.0	96.1	96.1

TOTAL NO. OF OBS : 974

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : OCT. HOUR : 1000 LST

## 2 - CEILING VS VISIBILITY

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)																	
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	22.3	46.0	52.3	56.5	59.2	60.4	61.6	61.7	61.7	61.7	62.0	62.1	62.1	62.1	62.1	62.1	62.1	62.1
>=20000	22.9	48.3	54.8	59.1	62.0	63.2	64.4	64.5	64.5	64.5	64.8	64.9	64.9	64.9	64.9	64.9	64.9	64.9
>=18000	23.1	49.1	55.5	59.8	62.7	63.9	65.1	65.2	65.2	65.2	65.5	65.6	65.6	65.6	65.6	65.6	65.6	65.6
>=16000	23.1	49.1	55.5	59.8	62.7	63.9	65.1	65.2	65.2	65.2	65.5	65.6	65.6	65.6	65.6	65.6	65.6	65.6
>=14000	23.2	49.2	55.7	60.0	62.9	64.2	65.3	65.4	65.4	65.4	65.7	65.8	65.8	65.8	65.8	65.8	65.8	65.8
>=12000	24.4	51.4	58.1	62.4	65.3	66.5	67.7	67.8	67.8	67.8	68.1	68.2	68.2	68.2	68.2	68.2	68.2	68.2
>=10000	24.7	52.2	58.9	63.4	66.5	67.8	69.0	69.1	69.1	69.1	69.4	69.5	69.5	69.5	69.5	69.5	69.5	69.5
>= 9000	24.7	52.4	59.2	63.7	66.8	68.1	69.3	69.4	69.4	69.4	69.7	69.8	69.8	69.8	69.8	69.8	69.8	69.8
>= 8000	25.0	53.5	60.3	64.9	68.1	69.3	70.6	70.7	70.7	70.7	71.0	71.1	71.1	71.1	71.1	71.1	71.1	71.1
>= 7000	25.1	53.8	60.6	65.3	68.5	69.7	71.0	71.1	71.1	71.1	71.4	71.5	71.5	71.5	71.5	71.5	71.5	71.5
>= 6000	25.3	54.0	60.8	65.5	68.7	69.9	71.2	71.3	71.3	71.3	71.6	71.7	71.7	71.7	71.7	71.7	71.7	71.7
>= 5000	25.4	54.3	61.2	65.9	69.1	70.4	71.6	71.7	71.7	71.7	72.0	72.1	72.1	72.1	72.1	72.1	72.1	72.1
>= 4500	25.5	54.6	61.5	66.2	69.4	70.7	71.9	72.0	72.0	72.0	72.3	72.4	72.4	72.4	72.4	72.4	72.4	72.4
>= 4000	26.0	55.4	62.2	67.0	70.2	71.5	72.7	72.8	72.8	72.8	73.1	73.2	73.2	73.2	73.2	73.2	73.2	73.2
>= 3500	26.3	56.0	62.8	67.7	70.9	72.1	73.3	73.5	73.5	73.5	73.8	73.9	73.9	73.9	73.9	73.9	73.9	73.9
>= 3000	26.5	56.8	63.7	68.6	71.8	73.0	74.3	74.4	74.4	74.4	74.7	74.8	74.8	74.8	74.8	74.8	74.8	74.8
>= 2500	27.1	58.1	65.2	70.0	73.2	74.5	75.7	75.8	75.8	75.8	76.1	76.2	76.2	76.2	76.2	76.2	76.2	76.2
>= 2000	28.1	60.1	67.6	72.5	75.8	77.1	78.4	78.6	78.6	78.6	78.9	79.0	79.0	79.0	79.0	79.0	79.0	79.0
>= 1800	28.4	61.4	68.9	73.9	77.2	78.5	79.9	80.1	80.1	80.1	80.4	80.5	80.5	80.5	80.5	80.5	80.5	80.5
>= 1500	29.1	64.7	72.3	77.5	81.0	82.3	83.7	83.9	83.9	83.9	84.2	84.3	84.3	84.3	84.3	84.3	84.3	84.3
>= 1200	29.5	66.2	74.7	80.0	83.5	84.9	86.4	86.6	86.6	86.6	86.9	87.0	87.0	87.0	87.0	87.0	87.0	87.0
>= 1000	29.8	68.8	77.3	82.6	86.3	87.7	89.5	89.8	89.8	89.8	90.1	90.2	90.2	90.2	90.2	90.2	90.2	90.2
>= 900	29.9	69.7	78.4	84.5	88.1	89.6	91.4	91.7	91.7	91.7	92.0	92.1	92.1	92.1	92.1	92.1	92.1	92.1
>= 800	29.9	70.5	79.6	85.8	89.5	90.9	92.9	93.2	93.2	93.2	93.5	93.6	93.6	93.6	93.6	93.6	93.6	93.6
>= 700	29.9	71.1	80.5	87.3	91.0	92.7	94.7	95.1	95.1	95.1	95.5	95.6	95.6	95.6	95.6	95.6	95.6	95.6
>= 600	30.0	71.5	81.1	88.2	92.1	93.8	96.1	96.6	96.6	96.6	97.1	97.2	97.2	97.2	97.2	97.2	97.2	97.2
>= 500	30.0	71.6	81.3	88.7	92.7	94.3	96.7	97.2	97.2	97.2	97.7	97.8	97.8	97.8	97.8	97.8	97.8	97.8
>= 400	30.0	71.6	81.2	88.7	93.0	94.6	97.2	98.0	98.2	98.2	99.1	99.2	99.2	99.2	99.2	99.2	99.2	99.2
>= 300	30.0	71.6	81.3	88.7	93.0	94.6	97.2	98.0	98.2	98.2	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>= 200	30.0	71.6	81.3	88.7	93.0	94.6	97.2	98.0	98.2	98.2	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>= 100	30.0	71.6	81.3	88.7	93.0	94.6	97.2	98.0	98.2	98.2	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>= 0	30.0	71.6	81.3	88.7	93.0	94.6	97.2	98.0	98.2	98.2	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5

DATE	DESCRIPTION	AMOUNT	TOTAL NO. OF OPS :	968
10/1/58	...	...	...	...
10/2/58	...	...	...	...
10/3/58	...	...	...	...
10/4/58	...	...	...	...
10/5/58	...	...	...	...
10/6/58	...	...	...	...
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10/8/58	...	...	...	...
10/9/58	...	...	...	...
10/10/58	...	...	...	...
10/11/58	...	...	...	...
10/12/58	...	...	...	...
10/13/58	...	...	...	...
10/14/58	...	...	...	...
10/15/58	...	...	...	...
10/16/58	...	...	...	...
10/17/58	...	...	...	...
10/18/58	...	...	...	...
10/19/58	...	...	...	...
10/20/58	...	...	...	...
10/21/58	...	...	...	...
10/22/58	...	...	...	...
10/23/58	...	...	...	...
10/24/58	...	...	...	...
10/25/58	...	...	...	...
10/26/58	...	...	...	...
10/27/58	...	...	...	...
10/28/58	...	...	...	...
10/29/58	...	...	...	...
10/30/58	...	...	...	...
10/31/58	...	...	...	...
11/1/58	...	...	...	...
11/2/58	...	...	...	...
11/3/58	...	...	...	...
11/4/58	...	...	...	...
11/5/58	...	...	...	...
11/6/58	...	...	...	...
11/7/58	...	...	...	...
11/8/58	...	...	...	...
11/9/58	...	...	...	...
11/10/58	...	...	...	...
11/11/58	...	...	...	...
11/12/58	...	...	...	...
11/13/58	...	...	...	...
11/14/58	...	...	...	...
11/15/58	...	...	...	...
11/16/58	...	...	...	...
11/17/58	...	...	...	...
11/18/58	...	...	...	...
11/19/58	...	...	...	...
11/20/58	...	...	...	...
11/21/58	...	...	...	...
11/22/58	...	...	...	...
11/23/58	...	...	...	...
11/24/58	...	...	...	...
11/25/58	...	...	...	...
11/26/58	...	...	...	...
11/27/58	...	...	...	...
11/28/58	...	...	...	...
11/29/58	...	...	...	...
11/30/58	...	...	...	...
12/1/58	...	...	...	...
12/2/58	...	...	...	...
12/3/58	...	...	...	...
12/4/58	...	...	...	...
12/5/58	...	...	...	...
12/6/58	...	...	...	...
12/7/58	...	...	...	...
12/8/58	...	...	...	...
12/9/58	...	...	...	...
12/10/58	...	...	...	...
12/11/58	...	...	...	...
12/12/58	...	...	...	...
12/13/58	...	...	...	...
12/14/58	...	...	...	...
12/15/58	...	...	...	...
12/16/58	...	...	...	...
12/17/58	...	...	...	...
12/18/58	...	...	...	...
12/19/58	...	...	...	...
12/20/58	...	...	...	...
12/21/58	...	...	...	...
12/22/58	...	...	...	...
12/23/58	...	...	...	...
12/24/58	...	...	...	...
12/25/58	...	...	...	...
12/26/58	...	...	...	...
12/27/58	...	...	...	...
12/28/58	...	...	...	...
12/29/58	...	...	...	...
12/				

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : OCT  
HOUR : 1300 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1
UNLIMIT	30.9	60.5	65.6	70.8	73.1	73.9	74.8	74.9	74.9	75.2
>=20000	31.7	62.7	68.2	73.5	75.9	76.7	77.7	77.8	78.0	78.2
>=18000	31.9	63.3	68.8	74.1	76.6	77.4	78.4	78.5	78.7	78.9
>=16000	31.9	63.3	69.8	74.1	76.6	77.4	78.4	78.5	78.7	78.9
>=14000	32.3	63.8	69.4	74.7	77.2	78.1	79.0	79.1	79.3	79.5
>=12000	33.6	65.7	71.4	76.7	79.2	80.0	81.0	81.2	81.4	81.6
>=10000	34.2	66.8	72.6	77.9	80.5	81.3	82.2	82.4	82.6	82.8
>=9000	34.5	67.4	73.3	78.6	81.2	82.0	83.0	83.2	83.4	83.6
>=8000	35.0	68.7	74.6	79.9	82.5	83.4	84.3	84.5	84.7	84.9
>=7000	35.2	69.9	74.8	80.1	82.7	83.6	84.5	84.7	84.9	85.1
>=6000	35.4	69.3	75.3	80.6	83.2	84.0	84.9	85.1	85.3	85.6
>=5000	35.7	69.8	75.7	81.0	83.7	84.5	85.4	85.7	85.9	86.1
>=4500	36.0	70.2	76.2	81.5	84.2	85.0	86.0	86.2	86.4	86.6
>=4000	36.2	70.8	76.8	82.2	84.9	85.8	86.7	86.9	87.1	87.3
>=3500	36.7	71.6	77.7	83.1	85.8	86.6	87.5	87.7	87.9	88.1
>=3000	37.3	72.5	78.5	83.9	86.6	87.4	88.4	88.6	88.8	89.0
>=2500	37.9	73.7	79.8	85.2	87.9	88.8	89.8	90.0	90.2	90.4
>=2000	38.8	75.2	81.3	86.8	89.5	90.3	91.4	91.6	91.8	92.0
>=1800	39.0	75.7	81.8	87.3	90.0	90.9	91.9	92.1	92.3	92.5
>=1500	39.5	77.2	83.5	89.1	92.3	93.1	94.2	94.4	94.6	94.8
>=1200	40.1	78.7	85.2	91.0	94.3	95.1	96.3	96.6	96.8	97.0
>=1000	40.4	80.0	86.8	92.9	96.4	97.2	98.3	98.6	99.0	99.2
>=900	40.4	80.1	86.9	93.0	96.5	97.3	98.4	98.8	99.1	99.3
>=800	40.5	80.4	87.1	93.2	96.7	97.5	98.6	99.0	99.3	99.5
>=700	40.5	80.4	87.1	93.2	96.8	97.7	98.9	99.3	99.6	99.8
>=600	40.5	80.4	87.1	93.2	96.8	97.7	98.9	99.3	99.6	99.8
>=500	40.5	80.4	87.2	93.3	97.0	97.9	99.1	99.5	99.8	100.0
>=400	40.5	80.4	87.2	93.3	97.0	97.9	99.1	99.5	99.8	100.0
>=300	40.5	80.4	87.2	93.3	97.0	97.9	99.1	99.5	99.8	100.0
>=200	40.5	80.4	87.2	93.3	97.0	97.9	99.1	99.5	99.8	100.0
>=100	40.5	80.4	87.2	93.3	97.0	97.9	99.1	99.5	99.8	100.0
>=0	40.5	80.4	87.2	93.3	97.0	97.9	99.1	99.5	99.8	100.0

TOTAL NO. OF OBS : 962

# 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 1600 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1 1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	35.5	67.4	71.5	73.7	75.0	75.2	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4
>=20000	36.7	71.0	75.5	77.8	79.0	79.2	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5
>=18000	37.2	71.6	76.1	78.5	79.8	80.0	80.2	80.2	80.2	80.2	80.2	80.2	80.2	80.2	80.2	80.2
>=16000	37.4	72.1	76.5	78.9	80.2	80.4	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6
>=14000	38.2	73.3	77.9	80.3	81.5	81.8	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0
>=12000	39.4	75.5	80.2	82.6	83.8	84.0	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3
>=10000	39.8	76.6	81.3	83.7	85.0	85.2	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4
>= 9000	40.1	77.0	81.6	84.0	85.3	85.5	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7
>= 8000	41.0	78.4	83.1	85.6	86.9	87.1	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3
>= 7000	41.2	78.7	83.4	85.9	87.4	87.6	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8
>= 6000	41.3	78.8	83.5	86.0	87.5	87.7	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9
>= 5000	41.7	79.9	84.7	87.2	88.6	88.8	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1
>= 4500	41.9	80.3	85.1	87.6	89.1	89.3	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5
>= 4000	42.3	81.3	86.1	88.7	90.2	90.4	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6
>= 3500	43.0	82.3	87.1	89.7	91.1	91.3	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6
>= 3000	43.1	82.7	87.5	90.1	91.6	91.8	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0
>= 2500	43.9	83.9	88.6	91.2	92.7	92.9	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1
>= 2000	44.4	85.1	90.0	92.8	94.3	94.5	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7
>= 1800	44.6	85.8	90.7	93.6	95.1	95.3	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5
>= 1500	45.3	87.2	92.2	95.1	96.7	97.0	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2
>= 1200	45.5	87.9	92.9	95.8	97.4	97.7	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9
>= 1000	45.6	88.1	93.1	96.1	97.7	98.0	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2
>= 900	45.6	88.1	93.1	96.4	97.9	98.2	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4
>= 800	45.7	88.4	93.5	96.9	98.4	98.7	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
>= 700	45.7	88.5	93.6	97.1	98.9	99.2	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>= 600	45.7	88.5	93.6	97.3	99.1	99.4	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 500	45.7	88.5	93.7	97.5	99.3	99.6	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 400	45.7	88.5	93.7	97.6	99.4	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 300	45.7	88.5	93.7	97.6	99.4	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 200	45.7	88.5	93.7	97.6	99.4	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 100	45.7	88.5	93.7	97.6	99.4	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 0	45.7	88.5	93.7	97.6	99.4	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 959

# 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 1900 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)																
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0	
UNLIMIT	42.3	72.8	74.7	75.2	75.7	75.8	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	
>=20000	42.7	74.7	76.7	77.1	77.6	77.7	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	
>=18000	42.9	75.2	77.1	77.5	78.1	78.2	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	
>=16000	43.0	75.4	77.3	77.7	78.4	78.5	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	
>=14000	43.8	76.9	79.1	79.6	80.2	80.3	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	
>=12000	44.9	78.5	80.6	81.1	81.8	81.9	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	
>=10000	45.5	79.5	81.6	82.2	82.8	82.9	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	
>=8000	45.7	79.7	81.9	82.4	83.0	83.1	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	
>=7000	46.4	81.1	83.2	83.8	84.4	84.5	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	
>=6000	46.5	81.3	83.6	84.1	84.7	84.9	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	
>=5000	46.7	81.6	83.9	84.4	85.1	85.2	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	
>=4500	47.0	82.2	84.4	84.9	85.6	85.7	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	
>=4000	47.3	82.8	85.1	85.6	86.2	86.3	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	
>=3500	47.7	83.9	86.2	86.7	87.3	87.4	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	
>=3000	47.8	84.0	86.3	86.8	87.4	87.5	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	
>=2500	48.1	84.8	87.2	87.7	88.4	88.5	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	
>=2000	48.5	85.3	87.6	88.1	88.8	88.9	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	
>=1800	48.8	86.8	89.2	89.7	90.4	90.5	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	
>=1600	48.9	87.6	90.0	90.5	91.2	91.3	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	
>=1500	49.5	89.5	91.9	92.4	93.1	93.2	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	
>=1200	49.7	90.4	92.9	93.7	94.4	94.5	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	
>=1000	50.1	91.1	93.7	94.5	95.3	95.4	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	
>=900	50.2	91.8	94.3	95.2	95.9	96.0	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	
>=800	50.3	92.2	94.8	95.8	96.6	96.7	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	
>=700	50.3	92.7	95.9	96.8	97.6	97.7	98.0	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	
>=600	50.5	93.5	96.8	97.7	98.6	98.7	99.0	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	
>=500	50.5	93.6	96.9	97.9	99.0	99.1	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	
>=400	50.5	93.8	97.2	98.2	99.3	99.4	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	
>=300	50.5	93.9	97.3	98.4	99.5	99.6	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
>=200	50.5	93.9	97.3	98.4	99.5	99.6	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
>=100	50.5	93.9	97.3	98.4	99.5	99.6	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
>=0	50.5	93.9	97.3	98.4	99.5	99.6	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TOTAL NO. OF OBS : 970



## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 2200 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1 1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	43.2	69.1	69.8	70.4	70.7	70.8	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9
>=20000	43.9	70.8	71.4	72.0	72.3	72.4	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5
>=18000	44.2	71.1	71.7	72.3	72.6	72.7	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8
>=16000	44.2	71.1	71.7	72.3	72.6	72.7	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8
>=14000	44.5	71.9	72.5	73.1	73.4	73.5	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6
>=12000	45.3	73.1	73.7	74.3	74.6	74.7	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8
>=10000	45.9	74.2	74.8	75.5	75.8	75.9	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0
>=9000	46.1	74.5	75.2	75.8	76.1	76.2	76.3	76.3	76.3	76.3	76.3	76.3	76.3	76.3	76.3	76.3
>=8000	46.8	75.7	76.3	76.9	77.2	77.3	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4
>=7000	47.0	76.0	76.6	77.2	77.5	77.6	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7
>=6000	47.3	76.3	76.9	77.5	77.8	77.9	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
>=5000	47.6	76.7	77.3	78.0	78.3	78.4	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5
>=4500	47.9	77.1	77.7	78.4	78.7	78.8	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9
>=4000	48.0	77.4	78.0	78.7	79.0	79.1	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2
>=3500	48.3	78.0	78.6	79.3	79.6	79.7	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8
>=3000	48.7	79.1	79.7	80.7	81.0	81.1	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2
>=2500	49.8	80.2	80.9	81.8	82.1	82.2	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3
>=2000	50.4	81.5	82.2	83.1	83.5	83.6	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7
>=1800	50.6	82.0	82.7	83.6	84.0	84.1	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2
>=1500	51.5	84.3	85.1	86.2	86.6	86.7	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8
>=1200	52.3	86.4	87.2	88.2	88.6	88.7	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8
>=1000	52.6	87.7	88.7	89.7	90.2	90.3	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4
>=900	52.9	89.1	90.1	91.1	91.6	91.9	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0
>=800	53.2	90.3	91.5	92.7	93.2	93.3	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5
>=700	53.7	91.9	93.5	94.6	95.2	95.3	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7
>=600	54.0	93.4	95.0	96.1	96.8	96.9	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5
>=500	54.0	93.8	95.6	96.8	97.6	97.7	98.4	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5
>=400	54.0	94.4	96.3	97.9	99.0	99.1	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=300	54.0	94.5	96.4	98.0	99.1	99.2	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=200	54.0	94.5	96.4	98.0	99.1	99.2	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=100	54.0	94.5	96.4	98.0	99.1	99.2	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=0	54.0	94.5	96.4	98.0	99.1	99.2	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 982

# 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : ALL

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)																		
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=2	>=1	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	34.5	60.2	63.2	65.2	66.3	66.7	67.1	67.2	67.2	67.2	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.4
>=20000	35.1	62.1	65.3	67.2	68.4	68.8	69.2	69.3	69.3	69.3	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.5	69.5
>=18000	35.4	62.6	65.8	67.8	69.0	69.3	69.8	69.9	69.9	69.9	69.9	69.9	69.9	70.0	70.0	70.0	70.0	70.0	70.0
>=16000	35.4	62.7	65.8	67.8	69.0	69.4	69.9	69.9	69.9	69.9	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.1	70.1
>=14000	35.9	63.5	66.7	68.7	69.9	70.2	70.7	70.8	70.8	70.8	70.8	70.8	70.8	70.9	70.9	70.9	70.9	70.9	70.9
>=12000	36.9	65.1	68.4	70.4	71.6	72.0	72.4	72.5	72.5	72.5	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.7	72.7
>=10000	37.4	66.2	69.5	71.5	72.8	73.1	73.6	73.7	73.7	73.7	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.9	73.9
>=9000	37.6	66.5	69.8	71.9	73.1	73.5	73.9	74.0	74.0	74.0	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.2	74.2
>=8000	38.2	67.7	71.0	73.1	74.3	74.7	75.1	75.2	75.2	75.2	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.4	75.4
>=7000	38.4	68.0	71.4	73.4	74.7	75.1	75.5	75.6	75.6	75.6	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.8	75.8
>=6000	38.5	68.3	71.6	73.7	75.0	75.4	75.8	75.9	75.9	75.9	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.1	76.1
>=5000	38.8	68.7	72.1	74.2	75.5	75.9	76.3	76.4	76.4	76.4	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.6	76.6
>=4500	39.1	69.2	72.6	74.7	76.0	76.4	76.8	76.9	76.9	76.9	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.1	77.1
>=4000	39.3	69.9	73.4	75.5	76.8	77.1	77.6	77.7	77.7	77.7	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.9	77.9
>=3500	39.7	70.5	73.9	76.0	77.3	77.7	78.2	78.3	78.3	78.3	78.3	78.3	78.3	78.4	78.4	78.4	78.4	78.4	78.4
>=3000	40.0	71.3	74.7	76.9	78.2	78.6	79.0	79.1	79.1	79.1	79.2	79.2	79.2	79.2	79.2	79.3	79.3	79.3	79.3
>=2500	40.7	72.4	75.9	78.1	79.4	79.8	80.3	80.4	80.4	80.4	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.6	80.6
>=2000	41.4	74.0	77.6	79.8	81.2	81.5	82.1	82.2	82.2	82.2	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.4	82.4
>=1800	41.7	74.8	78.4	80.6	82.0	82.4	82.9	83.0	83.0	83.0	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.2	83.2
>=1500	42.6	77.2	80.8	83.1	84.6	85.1	85.6	85.7	85.7	85.7	85.8	85.8	85.8	85.8	85.8	85.8	85.8	85.9	85.9
>=1200	43.1	79.3	83.0	85.4	87.0	87.4	88.0	88.1	88.1	88.1	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.3	88.3
>=1000	43.6	81.3	85.2	87.8	89.3	89.7	90.4	90.5	90.5	90.5	90.6	90.6	90.6	90.6	90.6	90.7	90.7	90.7	90.7
>=900	43.8	82.3	86.4	89.1	90.7	91.1	91.8	91.9	91.9	91.9	92.0	92.0	92.0	92.0	92.0	92.1	92.1	92.1	92.1
>=800	44.0	83.6	87.8	90.6	92.2	92.6	93.3	93.5	93.5	93.5	93.6	93.6	93.6	93.6	93.6	93.7	93.7	93.7	93.7
>=700	44.2	84.4	88.9	91.8	93.6	94.0	94.8	95.0	95.0	95.0	95.1	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2
>=600	44.4	85.3	90.0	93.1	94.9	95.3	96.2	96.4	96.4	96.4	96.5	96.6	96.6	96.6	96.6	96.6	96.6	96.7	96.7
>=500	44.4	85.7	90.7	93.8	95.7	96.2	97.1	97.4	97.4	97.4	97.5	97.5	97.5	97.5	97.5	97.6	97.6	97.7	97.7
>=400	44.4	86.0	91.2	94.6	96.7	97.1	98.3	98.5	98.5	98.5	98.6	98.8	98.8	98.8	98.9	98.9	98.9	99.0	99.0
>=300	44.4	86.1	91.2	94.6	96.8	97.3	98.5	98.8	98.8	98.8	98.9	99.1	99.1	99.1	99.3	99.3	99.3	99.4	99.4
>=200	44.4	86.1	91.3	94.7	96.9	97.4	98.5	98.9	98.9	98.9	99.2	99.4	99.4	99.4	99.5	99.5	99.5	99.6	99.6
>=100	44.4	86.1	91.3	94.7	96.9	97.4	98.5	98.9	98.9	98.9	99.3	99.4	99.4	99.4	99.5	99.5	99.6	99.7	99.8
>=0	44.4	86.1	91.3	94.7	96.9	97.4	98.5	98.9	98.9	98.9	99.3	99.4	99.4	99.4	99.5	99.5	99.6	99.7	100.0

TOTAL NO. OF OBS : 7788

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV  
 HOUR : 0100 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	SPEED (KNOTS)											TOTAL %	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56		
N	2.0	5.8	1.4	.8	.2	.0	.0	.0	.0	.0	.0	11.2	5.4
NNE	1.4	1.8	.4	.2	.0	.0	.0	.0	.0	.0	.0	3.8	4.7
NE	.6	.8	.2	.1	.0	.0	.0	.0	.0	.0	.0	2.0	4.3
ENE	.4	.6	.1	.1	.0	.0	.0	.0	.0	.0	.0	1.3	4.6
E	2.0	3.4	.7	.0	.0	.0	.0	.0	.0	.0	.0	6.2	4.4
ESE	2.1	4.2	1.4	.3	.0	.0	.0	.0	.0	.0	.0	7.9	5.2
SE	2.2	3.4	2.1	.8	.3	.0	.0	.0	.0	.0	.0	8.9	6.6
SSE	.6	1.1	1.6	.6	.5	.1	.0	.0	.0	.0	.0	4.9	8.6
S	.5	.7	1.1	1.0	.3	.2	.0	.0	.0	.0	.0	4.0	9.6
SSW	.5	.6	.3	.4	.0	.0	.0	.0	.0	.0	.0	1.9	7.1
SW	.1	1.1	.3	.2	.1	.0	.0	.0	.0	.0	.0	1.9	7.2
WSW	.4	.4	.8	.7	.1	.1	.1	.0	.0	.0	.0	2.3	9.2
W	1.3	2.5	1.5	.7	.2	.0	.0	.0	.0	.0	.0	6.2	6.6
WNW	.7	1.0	.8	.2	.2	.0	.0	.0	.0	.0	.0	3.0	6.9
NW	1.4	1.9	1.3	.7	.2	.0	.0	.0	.0	.0	.0	5.4	6.9
NNW	1.5	3.3	1.3	.8	.3	.1	.0	.0	.0	.0	.0	7.3	6.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	22.1	.0
ALL	19.1	33.0	15.2	7.5	2.5	.5	.1	.0	.0	.0	.0	100.0	4.9

TOTAL NO. OF OBS : 659

NOTES : \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV  
 HOUR : 0400 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT.	1	- 3	4	- 6	7-10	11-16	SPEED (KNOTS)						TOTAL	MEAN	
							17-21	22-27	28-33	34-40	41-47	48-55			>=56
DIR.	1	- 3	4	- 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	WIND	SPEED
N	4.9		5.0		1.7	.5	.2	.1	.0	.0	.0	.0	.0	12.4	5.1
NNE	1.5		1.7		.3	.3	.0	.0	.0	.0	.0	.0	.0	3.7	4.9
NE	1.1		.9		.0	.1	.0	.0	.0	.0	.0	.0	.0	2.2	4.0
ENE	.6		.5		.1	.0	.0	.0	.0	.0	.0	.0	.0	1.2	3.8
E	4.4		2.5		1.1	.0	.0	.0	.0	.0	.0	.0	.0	8.0	4.0
ESE	2.6		3.4		2.2	1.1	.0	.0	.0	.0	.0	.0	.0	9.4	6.1
SE	2.8		4.2		3.1	1.7	.4	.2	.0	.0	.0	.0	.0	12.4	7.2
SSE	.7		.6		1.0	.7	.5	.1	.0	.0	.0	.0	.0	3.7	9.6
S	.6		.5		.6	.8	.0	.1	.0	.0	.0	.0	.0	2.7	8.1
SSW	.2		.5		.2	.1	.0	.2	.0	.0	.0	.0	.0	1.2	9.0
SW	.3		.6		.4	.1	.2	.0	.0	.0	.0	.0	.0	1.7	7.9
WSW	.4		.5		.0	.5	.0	.0	.0	.0	.0	.0	.0	1.5	6.9
W	.5		1.6		1.8	.7	.2	.1	.0	.0	.0	.0	.0	4.9	8.2
WNW	.4		.3		.1	.3	.1	.1	.0	.0	.0	.0	.0	1.4	9.1
NW	.7		1.2		1.7	.4	.0	.0	.0	.0	.0	.0	.0	4.1	7.2
NNW	2.7		2.6		1.4	.7	.1	.0	.0	.0	.0	.0	.0	7.0	5.8
VAP	.0		.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0		.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	22.5	.0
ALL	24.1		26.8		15.7	8.2	1.8	.9	.0	.0	.0	.0	.0	100.0	4.9

TOTAL NO. OF OBS : 660

NOTES : \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV  
 HOUR : 0700 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	TOTAL	MEAN
N	4.3	3.7	1.8	.6	.1	.0	.0	.0	.0	.0	.0	10.5	5.0
NNE	1.6	.6	.9	.0	.0	.0	.0	.0	.0	.0	.0	3.1	4.6
NE	1.0	1.1	.4	.1	.0	.0	.0	.0	.0	.0	.0	2.7	4.6
ENE	1.0	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0	3.6
E	3.5	3.2	.9	.2	.0	.0	.0	.0	.0	.0	.0	7.2	4.3
ESE	2.9	5.6	2.1	.7	.1	.0	.0	.0	.0	.0	.0	11.5	5.5
SE	2.2	3.5	3.2	2.5	.4	.1	.0	.0	.0	.0	.0	12.0	7.8
SSE	.9	1.4	.7	.8	.8	.2	.0	.0	.0	.0	.0	4.9	9.3
S	1.1	1.2	.9	.8	.0	.0	.0	.0	.0	.0	.0	4.2	6.6
SSW	.2	.2	.3	.1	.2	.1	.0	.0	.0	.0	.0	1.1	9.9
SW	.1	1.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	1.4	5.7
WSW	.3	.6	.4	.3	.0	.1	.0	.0	.0	.0	.0	1.8	7.8
W	.8	.8	1.0	.7	.0	.0	.0	.0	.0	.0	.0	3.4	7.3
WNW	.3	.6	.5	.3	.1	.0	.0	.0	.0	.0	.0	1.9	7.9
NW	.8	.6	1.0	.4	.0	.0	.0	.0	.0	.0	.0	2.9	6.8
NNW	1.7	2.6	1.0	.6	.2	.0	.0	.0	.0	.0	.0	6.1	6.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	22.6	.0
ALL	22.9	28.0	15.5	8.4	2.0	.5	.0	.3	.0	.0	.0	100.0	4.8

TOTAL NO. OF OBS : 960

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV  
 HOUR : 1000 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	SPEED (KNOTS)															TOTAL %	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56						
N	1.4	2.2	1.9	2.0	.2	.0	.0	.0	.0	.0	.0	7.6	7.6	.0	.0	7.6	7.6
NNE	.2	.1	.7	.0	.1	.0	.0	.0	.0	.0	.0	1.1	1.1	.0	.0	1.1	8.0
NE	.3	.7	.3	.1	.0	.0	.0	.0	.0	.0	.0	1.5	1.5	.0	.0	1.5	5.8
ENE	.1	.4	.3	.1	.0	.0	.0	.0	.0	.0	.0	.9	.9	.0	.0	.9	6.1
E	.3	.7	.4	.0	.0	.0	.0	.0	.0	.0	.0	1.5	1.5	.0	.0	1.5	5.4
ESE	.6	1.8	1.4	.5	.2	.0	.0	.0	.0	.0	.0	4.5	4.5	.0	.0	4.5	7.1
SE	1.6	4.6	4.7	1.1	1.0	.1	.1	.1	.0	.0	.0	13.3	13.3	.0	.0	13.3	8.1
SSE	1.9	4.7	2.8	1.4	.6	.2	.0	.0	.0	.0	.0	11.6	11.6	.0	.0	11.6	7.3
S	4.6	4.6	1.1	.5	.2	.2	.0	.0	.0	.0	.0	11.2	11.2	.0	.0	11.2	5.1
SSW	1.7	.7	.4	.0	.0	.1	.0	.0	.0	.0	.0	2.9	2.9	.0	.0	2.9	4.3
SW	1.4	.9	.2	.4	.1	.0	.0	.0	.0	.0	.0	3.0	3.0	.0	.0	3.0	5.4
WSW	.9	1.1	.5	.4	.1	.0	.0	.0	.0	.0	.0	3.1	3.1	.0	.0	3.1	6.3
W	1.7	1.4	.7	.8	.2	.0	.0	.0	.0	.0	.0	4.8	4.8	.0	.0	4.8	6.8
WNW	.9	.8	1.0	.4	.1	.1	.0	.0	.0	.0	.0	3.4	3.4	.0	.0	3.4	7.2
NW	2.4	2.6	1.6	.5	.2	.1	.0	.0	.0	.0	.0	7.4	7.4	.0	.0	7.4	5.9
NNW	2.2	3.4	3.0	.5	.2	.0	.0	.0	.0	.0	.0	9.4	9.4	.0	.0	9.4	6.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.7	12.7	.0	.0	12.7	.0
ALL	22.1	30.8	21.1	8.9	3.3	.8	.1	.1	.1	.0	.0	100.0	100.0	.0	.0	100.0	5.8

TOTAL NO. OF OBS : 960

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV  
 HOUR : 1300 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT.		SPEED (KNOTS)																TOTAL %		MEAN	
DIR.		1	2	3	4	5	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	%	WIND	SPEED		
N		.4	2.5			1.0		.6		.4		.0		.0		.0	5.0	7.6			
NNE		.0	.1			.1		.3		.1		.0		.0		.0	.6	12.8			
NE		.1	.3			.7		.4		.0		.0		.0		.0	1.6	8.7			
ENE		.0	.1			.1		.0		.0		.0		.0		.0	.2	6.5			
E		.3	.4			.1		.0		.0		.0		.0		.0	.8	4.9			
ESE		.3	.4			.4		.2		.0		.0		.0		.0	1.4	6.2			
SE		.7	1.6			1.7		1.0		.6		.1		.0		.0	5.7	9.0			
SSE		1.3	2.0			1.1		.7		.6		.3		.0		.0	6.1	8.7			
S		3.1	3.3			.9		.8		.5		.0		.0		.0	9.0	6.3			
SSW		1.9	2.4			.6		.4		.1		.0		.0		.0	5.4	5.4			
SW		1.9	1.6			.8		.4		.0		.0		.0		.0	4.7	5.4			
WSW		3.1	2.8			1.0		.5		.1		.0		.0		.0	7.6	5.0			
W		2.9	5.5			2.5		1.9		.2		.0		.0		.0	13.0	6.3			
WNW		.7	3.8			3.0		1.1		.4		.1		.0		.0	9.2	7.8			
NW		.8	6.5			5.8		1.5		.0		.1		.0		.0	14.7	7.0			
NNW		.9	3.9			3.5		1.1		.1		.1		.0		.0	9.7	7.2			
VAR		.0	.0			.0		.0		.0		.0		.0		.0	.0	.0			
CLM		.0	.0			.0		.0		.0		.0		.0		.0	5.2	.0			
ALL		18.6	37.2			23.7		11.2		3.2		.9		.0		.0	100.0	6.5			

TOTAL NO. OF OBS : 958

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	SPEED (KNOTS)																TOTAL %	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56							
N	1.0	1.4	.8	.5	.1	.0	.0	.0	.0	.0	.0	.0	3.9	6.7				
NNE	.1	.5	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	1.2	7.7				
NE	.4	1.0	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.9	5.7				
ENE	.2	.7	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.4	5.4				
E	.4	.4	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.4	5.2				
ESE	.0	.6	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	1.2	8.2				
SE	.5	.4	.6	.6	.4	.1	.1	.0	.0	.0	.0	.0	2.8	10.6				
SSE	.4	.6	.8	.7	.2	.0	.0	.0	.0	.0	.0	.0	2.8	9.3				
S	.8	.9	.9	1.1	.6	.1	.0	.0	.0	.0	.0	.0	4.6	9.6				
SSW	.9	1.0	.6	.6	.1	.2	.0	.0	.0	.0	.0	.0	3.5	7.5				
SW	.7	1.2	.3	.3	.1	.0	.0	.0	.0	.0	.0	.0	2.7	6.2				
WSW	.5	1.5	2.0	.5	.2	.0	.0	.0	.0	.0	.0	.0	4.7	7.8				
W	1.8	4.8	13.1	4.7	.5	.1	.0	.0	.0	.0	.0	.0	25.0	8.6				
WNW	.4	5.3	5.2	2.2	.2	.0	.0	.0	.0	.0	.0	.0	13.3	7.7				
NW	1.0	6.9	5.2	1.7	.1	.2	.0	.0	.0	.0	.0	.0	15.1	7.2				
NNW	.8	3.5	3.2	.3	.1	.0	.0	.0	.0	.0	.0	.0	8.0	6.5				
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0				
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.5	.0				
ALL	10.2	30.9	34.9	14.0	2.7	.7	.1	.0	.0	.0	.0	.0	100.0	7.3				

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT < .05



# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV  
 HOUR : 1900 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT.	SPEED (KNOTS)																TOTAL %	MEAN WIND SPEED																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
DIR.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
N	2.6	2.9	.9	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

TOTAL NO. OF OBS : 960

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD: 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV  
 HOUR : 2200 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	SPEED (KNOTS)										TOTAL %	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55		
N	4.3	4.7	2.0	.6	.0	.1	.0	.0	.0	.0	11.7	5.1
NNE	1.1	1.8	.1	.0	.0	.0	.0	.0	.0	.0	3.0	4.1
NE	1.2	.5	.1	.0	.0	.1	.0	.0	.0	.0	2.0	4.5
ENE	.2	.3	.2	.1	.0	.0	.0	.0	.0	.0	.8	6.1
E	2.0	1.2	.1	.1	.0	.0	.0	.0	.0	.0	3.4	3.5
ESE	1.4	2.3	1.0	.3	.0	.1	.0	.0	.0	.0	5.1	5.8
SE	1.7	1.8	2.0	.7	.4	.4	.0	.0	.0	.0	7.0	8.0
SSE	1.0	.6	.7	.5	.4	.0	.0	.0	.0	.0	3.3	8.3
S	.3	1.9	1.1	.5	.3	.1	.0	.0	.0	.0	4.3	8.3
SSW	.4	.9	1.0	.3	.2	.1	.0	.0	.0	.0	3.0	8.3
SW	.7	.8	.9	.3	.0	.0	.0	.0	.0	.0	2.8	6.4
WSW	1.0	.8	.9	.6	.1	.0	.0	.0	.0	.0	3.5	7.0
W	1.6	3.3	2.5	1.0	.1	.0	.0	.0	.0	.0	8.5	6.8
WNW	1.0	1.2	2.1	.8	.0	.0	.0	.0	.0	.0	5.2	7.3
NW	2.1	2.8	1.6	.6	.4	.1	.0	.0	.0	.0	7.6	6.5
NNW	2.2	3.5	1.7	.7	.2	.0	.0	.0	.0	.0	8.3	6.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20.3	.0
ALL	22.3	28.6	16.1	7.4	2.2	1.0	.0	.0	.0	.0	100.0	5.1

TOTAL NO. OF OBS : 960

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV  
 HOUR : ALL

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	1	2	3	4	5	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL	MEAN WIND SPEED
N	2.7	3.5	1.4	.8	.2	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.6	5.7
NNE	.9	.9	.4	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.3	5.1
NE	.7	.8	.3	.1	.0	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.9	5.1
ENE	.4	.5	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	4.8
E	1.8	1.6	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.0	4.3
ESE	1.3	2.5	1.1	.5	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.4	5.9
SE	1.6	2.6	2.2	1.2	.5	.2	.0*	.0	.0	.0	.0	.0	.0	.0	.0	8.3	7.9
SSE	1.0	1.4	1.2	.8	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.1	8.5
S	1.5	1.8	1.0	.8	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.5	7.1
SSW	.8	.9	.5	.3	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.6	6.9
SW	.7	1.0	.5	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.6	6.4
WSW	.9	1.2	.8	.4	.1	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	3.5	6.8
W	1.6	3.1	3.6	1.4	.2	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.1	7.3
WNW	.7	2.1	2.0	.8	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.7	7.5
NW	1.4	3.3	2.5	.9	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.3	6.8
NNW	1.8	3.8	2.2	.7	.2	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.6	6.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	16.1	.0
ALL	19.7	31.1	20.5	9.2	2.5	.3	.1	.0	.0	.0	.0	.0*	.0	.0	.0	100.0	5.6

TOTAL NO. OF OBS : 7677

NOTES :  
 \* = PERCENT < .05

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV  
 HOUR : 0100 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	32.3	53.7	57.2	59.5	60.4	60.7	61.3	61.5	61.7	61.9	61.9	61.9	61.9	61.9	61.9	62.0
>=20000	33.1	56.0	59.5	61.9	62.9	63.1	63.7	63.9	64.1	64.3	64.3	64.3	64.3	64.3	64.3	64.5
>=18000	33.1	56.1	59.6	62.0	63.0	63.2	63.8	64.0	64.2	64.5	64.5	64.5	64.5	64.5	64.5	64.6
>=16000	33.2	56.2	59.7	62.1	63.1	63.3	63.9	64.1	64.3	64.6	64.6	64.6	64.6	64.6	64.6	64.7
>=14000	33.8	57.6	61.2	63.7	64.7	64.9	65.5	65.7	65.9	66.1	66.1	66.1	66.1	66.1	66.1	66.2
>=12000	34.9	59.5	63.1	65.6	66.6	66.8	67.4	67.6	67.8	68.0	68.0	68.0	68.0	68.0	68.1	68.1
>=10000	36.0	61.2	65.1	67.6	68.8	69.0	69.7	69.9	70.1	70.4	70.4	70.4	70.4	70.4	70.4	70.5
>=9000	36.3	61.6	65.5	68.0	69.2	69.4	70.1	70.4	70.6	70.8	70.8	70.8	70.8	70.8	70.8	70.9
>=8000	37.1	63.1	67.0	69.5	70.9	71.1	71.8	72.0	72.3	72.5	72.5	72.5	72.5	72.5	72.5	72.6
>=7000	37.7	64.2	68.1	70.7	72.0	72.3	73.0	73.2	73.4	73.6	73.6	73.6	73.6	73.6	73.6	73.7
>=6000	38.1	64.9	68.8	71.3	72.7	72.9	73.6	73.8	74.1	74.3	74.3	74.3	74.3	74.3	74.3	74.4
>=5000	38.7	66.0	69.9	72.5	73.9	74.2	74.9	75.1	75.3	75.5	75.5	75.5	75.5	75.5	75.5	75.6
>=4500	39.0	66.6	70.5	73.0	74.5	74.7	75.4	75.6	75.8	76.1	76.1	76.1	76.1	76.1	76.1	76.2
>=4000	39.2	67.2	71.1	73.7	75.2	75.4	76.2	76.4	76.6	76.8	76.8	76.8	76.8	76.8	76.8	76.9
>=3500	39.9	68.6	72.5	75.1	76.6	76.8	77.5	77.7	78.0	78.2	78.2	78.2	78.2	78.2	78.2	78.3
>=3000	40.2	69.6	73.6	76.6	78.1	78.3	79.0	79.2	79.4	79.6	79.6	79.6	79.6	79.6	79.6	79.7
>=2500	41.8	71.8	75.8	78.9	80.5	80.7	81.5	81.8	82.0	82.2	82.2	82.2	82.2	82.2	82.2	82.3
>=2000	43.0	74.5	78.6	81.6	83.3	83.5	84.4	84.6	84.8	85.0	85.0	85.0	85.0	85.0	85.0	85.1
>=1800	43.5	75.2	79.3	82.4	84.1	84.3	85.1	85.3	85.5	85.8	85.8	85.8	85.8	85.8	85.8	85.9
>=1500	44.2	77.3	81.5	84.8	86.8	87.0	87.9	88.1	88.3	88.5	88.5	88.5	88.5	88.5	88.5	88.6
>=1200	45.3	79.9	84.2	87.8	89.9	90.1	90.9	91.1	91.4	91.6	91.6	91.6	91.6	91.6	91.6	91.7
>=1000	46.0	81.3	86.0	89.7	91.8	92.0	92.9	93.1	93.4	93.6	93.6	93.6	93.6	93.6	93.6	93.7
>=900	46.1	81.6	86.4	90.2	92.4	92.6	93.6	93.8	94.0	94.2	94.2	94.2	94.2	94.2	94.2	94.3
>=800	46.1	82.1	86.8	90.9	93.1	93.5	94.4	94.6	94.8	95.0	95.0	95.0	95.0	95.0	95.0	95.1
>=700	46.6	83.2	88.1	92.3	94.7	95.0	96.0	96.2	96.4	96.6	96.6	96.6	96.6	96.6	96.6	96.7
>=600	46.7	83.5	88.5	92.7	95.3	95.6	96.6	96.8	97.0	97.3	97.3	97.3	97.3	97.3	97.3	97.4
>=500	46.8	83.9	88.8	93.1	95.8	96.1	97.2	97.4	97.6	97.8	97.8	97.8	97.8	97.8	97.8	97.9
>=400	46.8	84.0	88.9	93.5	96.2	96.5	97.6	97.8	98.0	98.2	98.3	98.3	98.3	98.3	98.3	98.4
>=300	46.8	84.0	88.9	93.5	96.5	96.8	98.1	98.3	98.5	98.9	99.1	99.1	99.1	99.1	99.1	99.2
>=200	46.8	84.0	88.9	93.5	96.5	96.8	98.2	98.4	98.6	99.1	99.3	99.3	99.4	99.4	99.4	99.5
>=100	46.8	84.0	88.9	93.5	96.5	96.8	98.2	98.4	98.6	99.1	99.5	99.5	99.6	99.6	99.6	99.9
>=0	46.8	84.0	88.9	93.5	96.5	96.8	98.2	98.4	98.6	99.1	99.5	99.5	99.6	99.6	99.6	100.0

TOTAL NO. OF OBS : 948

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : NOV  
HOUR : 0400 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)																	
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	29.2	50.7	53.7	56.0	57.8	58.1	59.0	59.1	59.1	59.1	59.1	59.1	59.4	59.4	59.4	59.4	59.4	59.4
>=20000	29.7	51.8	55.1	57.4	59.2	59.5	60.4	60.5	60.5	60.5	60.5	60.5	60.8	60.8	60.8	60.8	60.8	60.8
>=18000	29.7	52.1	55.3	57.6	59.4	59.7	60.6	60.7	60.7	60.7	60.7	60.7	61.0	61.0	61.0	61.0	61.0	61.0
>=16000	29.9	52.3	55.5	57.8	59.6	59.9	60.8	60.9	60.9	60.9	60.9	60.9	61.2	61.2	61.2	61.2	61.2	61.2
>=14000	30.4	53.0	56.3	58.6	60.4	60.7	61.5	61.6	61.6	61.6	61.6	61.6	61.9	61.9	61.9	61.9	61.9	61.9
>=12000	31.2	54.3	57.8	60.3	62.0	62.4	63.2	63.3	63.3	63.3	63.3	63.3	63.6	63.6	63.6	63.6	63.6	63.6
>=10000	32.2	55.9	59.7	62.3	64.1	64.5	65.3	65.5	65.5	65.5	65.5	65.5	65.8	65.8	65.8	65.8	65.8	65.8
>= 9000	32.3	56.3	60.0	62.6	64.5	64.8	65.6	65.8	65.8	65.8	65.8	65.8	66.1	66.1	66.1	66.1	66.1	66.1
>= 8000	33.9	58.7	62.6	65.2	67.2	67.5	68.3	68.6	68.6	68.6	68.6	68.6	68.9	68.9	68.9	68.9	68.9	68.9
>= 7000	34.2	59.1	63.0	65.6	67.6	67.9	68.8	69.0	69.0	69.0	69.0	69.0	69.3	69.3	69.3	69.3	69.3	69.3
>= 6000	34.7	59.8	63.7	66.4	68.3	68.7	69.5	69.7	69.7	69.7	69.7	69.7	70.0	70.0	70.0	70.0	70.0	70.0
>= 5000	35.4	61.0	64.9	67.5	69.5	69.8	70.7	70.9	70.9	70.9	70.9	70.9	71.2	71.2	71.2	71.2	71.2	71.2
>= 4500	35.5	61.5	65.5	68.1	70.1	70.5	71.3	71.5	71.5	71.5	71.5	71.5	71.8	71.8	71.8	71.8	71.8	71.8
>= 4000	36.1	62.5	66.5	69.3	71.3	71.6	72.5	72.7	72.7	72.7	72.7	72.7	73.0	73.0	73.0	73.0	73.0	73.0
>= 3500	36.5	63.3	67.3	70.3	72.3	72.7	73.5	73.7	73.7	73.7	73.7	73.7	74.0	74.0	74.0	74.0	74.0	74.0
>= 3000	37.3	65.1	69.1	72.1	74.1	74.4	75.4	75.6	75.6	75.6	75.6	75.6	75.9	75.9	75.9	75.9	75.9	75.9
>= 2500	37.9	66.4	70.3	73.5	75.5	75.8	76.8	77.0	77.0	77.0	77.0	77.0	77.3	77.3	77.3	77.3	77.3	77.3
>= 2000	38.9	69.1	73.1	76.2	78.4	78.9	79.9	80.2	80.2	80.2	80.2	80.2	80.5	80.5	80.5	80.5	80.5	80.5
>= 1800	39.1	70.1	74.2	77.5	79.7	80.1	81.3	81.6	81.6	81.6	81.6	81.6	81.9	81.9	81.9	81.9	81.9	81.9
>= 1500	40.3	72.3	76.7	80.5	82.9	83.3	84.5	84.9	84.9	84.9	84.9	84.9	85.3	85.3	85.3	85.3	85.3	85.3
>= 1200	41.4	74.3	78.9	83.2	85.9	86.3	87.6	87.9	87.9	87.9	87.9	87.9	88.3	88.3	88.3	88.3	88.3	88.3
>= 1000	42.0	76.2	80.8	85.2	88.0	88.5	89.8	90.1	90.1	90.1	90.1	90.1	90.5	90.5	90.5	90.5	90.5	90.5
>= 900	42.1	76.7	81.2	85.8	88.6	89.2	90.5	90.9	90.9	90.9	90.9	90.9	91.3	91.3	91.3	91.3	91.3	91.3
>= 800	42.1	77.3	81.8	86.5	89.5	90.1	91.5	91.8	91.8	91.8	91.8	91.8	92.2	92.2	92.2	92.2	92.2	92.2
>= 700	42.2	78.1	82.8	87.5	90.5	91.2	92.7	93.1	93.1	93.1	93.1	93.1	93.5	93.5	93.5	93.5	93.5	93.5
>= 600	42.3	79.1	83.8	88.6	91.8	92.4	94.0	94.5	94.5	94.5	94.5	94.5	95.2	95.2	95.2	95.2	95.2	95.2
>= 500	42.3	79.4	84.2	89.3	92.7	93.4	95.1	95.6	95.6	95.6	95.6	95.6	96.2	96.2	96.2	96.2	96.2	96.2
>= 400	42.3	79.6	84.6	89.7	93.4	94.1	95.9	96.4	96.4	96.4	96.4	96.4	97.4	97.4	97.4	97.4	97.4	97.4
>= 300	42.3	79.6	84.6	89.7	93.6	94.3	96.2	96.7	96.7	96.7	96.7	96.7	97.9	97.9	98.0	98.0	98.1	98.2
>= 200	42.3	79.6	84.6	89.7	93.7	94.4	96.3	96.8	96.8	96.8	96.8	96.8	98.0	98.0	98.1	98.1	98.2	98.3
>= 100	42.3	79.6	84.6	89.7	93.7	94.4	96.3	96.8	96.8	96.8	96.8	96.8	98.1	98.1	98.2	98.2	98.6	98.9
>= 0	42.3	79.6	84.6	89.7	93.7	94.4	96.3	96.8	96.8	96.8	96.8	96.8	98.1	98.1	98.2	98.2	98.6	100.0

TOTAL NO. OF OBS : 951

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : NOV  
HOUR : 0700 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0	
UNLIMIT	21.8	35.9	40.8	44.7	49.1	50.4	52.1	52.5	52.6	52.7	52.8	52.8	52.8	53.0	53.4	
>=20000	22.0	37.6	42.6	46.6	51.0	52.3	54.0	54.4	54.5	54.7	55.0	55.0	55.0	55.2	55.5	
>=18000	22.0	37.2	43.0	47.1	51.4	52.7	54.4	54.8	55.0	55.2	55.4	55.4	55.4	55.6	55.9	
>=16000	22.2	38.0	43.2	47.3	51.7	52.9	54.6	55.1	55.2	55.4	55.6	55.6	55.6	55.8	56.1	
>=14000	22.9	39.5	44.8	49.0	53.4	54.6	56.4	57.0	57.1	57.3	57.5	57.5	57.5	57.7	58.0	
>=12000	23.9	41.4	47.0	51.3	55.7	57.0	58.8	59.3	59.4	59.6	59.9	59.9	59.9	60.1	60.4	
>=10000	24.8	43.0	48.8	53.2	57.7	59.1	60.9	61.4	61.6	61.8	62.0	62.0	62.0	62.2	62.5	
>=9000	24.9	43.2	49.0	53.5	57.9	59.3	61.1	61.7	61.8	62.0	62.2	62.2	62.2	62.4	62.7	
>=8000	26.0	45.5	51.2	55.8	60.4	61.9	63.7	64.2	64.3	64.5	64.7	64.7	64.7	65.0	65.3	
>=7000	26.3	46.2	52.0	56.7	61.2	62.7	64.5	65.1	65.2	65.4	65.6	65.6	65.6	65.8	66.1	
>=6000	26.5	46.4	52.2	56.9	61.4	62.9	64.7	65.3	65.4	65.6	65.8	65.8	65.8	66.0	66.3	
>=5000	26.9	47.4	53.2	58.0	62.8	64.4	66.2	66.8	66.9	67.1	67.3	67.3	67.3	67.5	67.8	
>=4500	27.3	47.8	53.7	58.5	63.3	64.9	66.7	67.2	67.3	67.5	67.7	67.7	67.7	67.9	68.3	
>=4000	27.5	48.5	54.6	59.4	64.2	65.8	67.6	68.2	68.3	68.5	68.7	68.7	68.7	68.9	69.2	
>=3500	27.9	49.3	55.5	60.3	65.4	67.0	68.8	69.3	69.4	69.6	69.9	69.9	69.9	70.1	70.4	
>=3000	28.9	51.1	57.3	62.2	67.3	68.9	70.9	71.5	71.6	71.8	72.0	72.0	72.0	72.2	72.5	
>=2500	29.8	52.7	59.0	64.1	69.2	70.8	72.8	73.4	73.5	73.7	73.9	73.9	73.9	74.1	74.4	
>=2000	30.9	54.8	61.6	66.8	71.9	73.6	75.7	76.3	76.4	76.6	76.8	76.8	76.8	77.0	77.3	
>=1800	31.0	55.1	61.9	67.2	72.4	74.2	76.4	76.9	77.0	77.2	77.4	77.4	77.4	77.6	78.0	
>=1500	32.2	58.3	65.4	71.2	76.7	78.5	80.6	81.4	81.5	81.7	81.9	81.9	81.9	82.1	82.4	
>=1200	32.6	59.6	67.1	73.3	79.8	80.8	83.1	83.8	83.9	84.2	84.6	84.6	84.6	84.8	85.1	
>=1000	32.7	60.4	68.2	74.3	80.2	82.4	85.0	85.7	85.8	86.2	86.5	86.5	86.5	86.7	87.0	
>=900	32.8	60.9	68.8	75.1	81.0	83.3	85.9	86.7	86.8	87.2	87.5	87.5	87.5	87.8	88.1	
>=800	32.8	61.6	69.6	76.3	82.2	84.6	87.3	88.2	88.3	88.8	89.1	89.1	89.1	89.4	89.7	
>=700	32.9	62.2	70.4	77.0	83.1	85.5	89.4	89.5	89.5	90.0	90.3	90.3	90.3	90.5	90.8	
>=600	33.0	62.4	70.8	77.6	83.7	86.2	89.4	90.3	90.4	91.1	91.6	91.6	91.6	91.8	92.1	
>=500	33.0	62.4	71.0	78.0	84.2	86.9	90.1	91.1	91.2	92.1	92.7	92.8	92.8	93.0	93.3	
>=400	33.0	62.4	71.1	78.2	84.7	87.4	90.9	92.2	92.4	93.7	94.4	94.6	94.6	94.8	95.1	
>=300	33.0	62.4	71.1	78.2	84.9	87.6	91.3	92.5	92.8	94.5	95.2	95.7	95.7	96.0	96.5	
>=200	33.0	62.4	71.2	78.3	85.1	87.9	91.5	92.8	93.0	95.0	95.7	96.4	96.4	96.6	97.2	
>=100	33.0	62.4	71.2	78.3	85.1	87.9	91.5	92.8	93.0	95.0	95.8	96.6	96.6	96.9	98.3	
>=0	33.0	62.4	71.2	78.3	85.1	87.9	91.5	92.8	93.0	95.0	95.8	96.6	96.6	97.0	100.0	

TOTAL NO. OF OBS : 939

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : NOV  
HOUR : 1000 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1 1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	19.9	35.9	40.1	45.1	48.6	49.8	51.8	52.4	53.2	53.4	53.5	53.5	53.6	53.6	53.6	53.7
>=20000	21.2	38.6	42.9	48.1	51.7	53.3	55.0	55.7	56.5	56.7	56.8	56.8	56.9	56.9	56.9	57.0
>=18000	21.2	39.5	43.7	49.1	52.6	54.0	55.9	56.7	57.4	57.6	57.8	57.8	57.9	57.9	57.9	58.0
>=16000	21.4	39.9	44.2	49.5	53.0	54.4	56.5	57.2	58.0	58.2	58.3	58.3	58.4	58.4	58.4	58.5
>=14000	22.4	41.0	45.2	50.9	54.4	55.8	58.1	58.8	59.6	59.9	60.0	60.0	60.1	60.1	60.1	60.2
>=12000	23.0	42.6	47.5	53.4	57.0	58.4	60.6	61.5	62.2	62.7	62.8	62.8	62.9	62.9	62.9	63.0
>=10000	23.9	44.4	49.4	55.7	59.5	60.9	63.1	64.3	64.7	65.1	65.2	65.2	65.3	65.3	65.3	65.5
>= 9000	24.0	44.6	49.6	55.9	59.8	61.2	63.4	64.3	65.0	65.5	65.6	65.6	65.7	65.7	65.7	65.8
>= 8000	24.7	46.0	51.0	57.5	61.7	63.1	65.5	66.3	67.1	67.5	67.6	67.6	67.7	67.7	67.7	67.8
>= 7000	24.9	46.5	51.6	58.4	62.6	64.3	66.3	67.2	67.9	68.3	68.4	68.4	68.6	68.6	68.6	68.7
>= 6000	24.9	46.7	51.8	58.7	63.0	64.4	66.7	67.6	68.3	68.8	68.9	68.9	69.0	69.0	69.0	69.1
>= 5000	25.0	47.6	52.7	59.8	64.1	65.5	67.8	68.7	69.4	69.8	69.9	69.9	70.1	70.1	70.1	70.2
>= 4500	25.1	47.9	53.0	60.1	64.5	65.9	68.2	69.1	69.8	70.3	70.4	70.4	70.5	70.5	70.5	70.6
>= 4000	25.3	48.6	53.7	60.9	65.2	66.6	69.0	69.8	70.6	71.0	71.1	71.1	71.2	71.2	71.2	71.3
>= 3500	26.1	49.5	54.7	61.9	66.4	67.8	70.2	71.0	71.8	72.2	72.3	72.3	72.4	72.4	72.4	72.5
>= 3000	26.8	50.7	56.1	63.5	68.1	69.5	71.9	72.9	73.7	74.1	74.2	74.2	74.3	74.3	74.3	74.4
>= 2500	27.9	53.3	58.9	66.3	71.0	72.4	74.6	75.8	76.6	77.0	77.1	77.1	77.2	77.2	77.2	77.3
>= 2000	30.1	56.6	62.5	70.1	74.9	76.1	78.5	79.6	80.3	80.7	80.9	80.9	81.0	81.0	81.0	81.1
>= 1800	30.4	57.6	63.6	71.2	75.9	77.3	79.7	80.7	81.5	81.9	82.0	82.0	82.1	82.1	82.1	82.2
>= 1500	30.7	59.4	66.1	74.3	79.3	80.7	83.6	84.8	85.6	86.2	86.3	86.3	86.4	86.4	86.4	86.5
>= 1200	31.0	60.7	67.6	76.5	82.0	83.9	86.6	87.9	88.7	89.3	89.4	89.4	89.5	89.5	89.5	89.6
>= 1000	31.0	61.4	68.2	77.3	83.2	84.9	87.9	89.3	90.1	90.7	90.8	90.8	90.9	90.9	90.9	91.0
>= 900	31.1	61.5	68.6	77.8	83.6	85.5	88.8	90.3	91.0	91.9	92.0	92.0	92.1	92.1	92.1	92.2
>= 800	31.2	62.0	69.1	78.6	84.6	86.5	89.8	91.3	92.1	92.9	93.0	93.0	93.2	93.2	93.2	93.3
>= 700	31.2	62.1	69.2	78.8	84.8	86.7	90.2	91.7	92.4	93.4	93.5	93.5	93.6	93.6	93.6	93.7
>= 600	31.2	62.1	69.3	79.0	85.3	87.4	91.0	92.9	93.7	94.7	94.8	94.8	94.9	94.9	94.9	95.0
>= 500	31.2	62.2	69.4	79.1	85.6	87.6	91.4	93.6	94.3	95.5	95.6	95.6	95.7	95.7	95.7	95.8
>= 400	31.2	62.2	69.4	79.1	85.7	87.8	91.9	94.1	94.9	96.4	96.4	96.6	96.8	96.8	96.8	96.9
>= 300	31.2	62.2	69.4	79.1	85.8	88.3	92.3	94.7	95.4	97.3	97.5	97.5	98.0	98.0	98.0	98.1
>= 200	31.2	62.2	69.4	79.1	85.8	88.3	92.3	94.8	95.5	97.5	98.0	98.0	98.6	98.6	98.7	98.9
>= 100	31.2	62.2	69.4	79.1	85.8	88.3	92.3	94.8	95.5	97.5	98.0	98.0	98.7	98.7	98.8	99.4
>= 0	31.2	62.2	69.4	79.1	85.8	88.3	92.3	94.8	95.5	97.5	98.0	98.0	98.8	98.8	98.9	100.0

TOTAL NO. OF OBS : 935

# 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV  
 HOUR : 1300 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/4	>=1
UNLIMIT	23.4	42.0	47.6	52.5	57.0	58.2	60.1	60.5	60.7	61.0
>=20000	24.6	44.9	50.8	56.1	60.9	62.0	64.1	64.5	64.7	64.9
>=18000	24.9	46.0	52.0	57.3	62.0	63.2	65.2	65.7	65.9	66.1
>=16000	24.9	46.2	52.0	57.6	62.7	63.9	66.0	66.4	66.6	66.8
>=14000	25.5	47.6	53.6	59.5	64.9	66.2	68.3	68.9	69.1	69.3
>=12000	26.0	49.0	55.3	61.4	66.8	68.1	70.5	71.0	71.2	71.4
>=10000	27.0	51.1	57.6	63.7	69.4	70.7	73.0	73.6	73.8	74.0
>= 9000	27.1	51.3	57.9	64.1	69.7	71.0	73.4	73.9	74.1	74.3
>= 8000	28.0	53.0	59.8	66.1	72.0	73.3	75.7	76.4	76.6	76.8
>= 7000	28.1	53.5	60.2	66.5	72.5	73.8	76.4	77.0	77.2	77.4
>= 6000	28.1	53.6	60.3	66.6	72.6	73.9	76.5	77.1	77.3	77.5
>= 5000	28.2	54.0	60.7	67.1	73.0	74.3	76.9	77.5	77.8	78.0
>= 4500	28.7	54.7	61.5	67.8	73.8	75.2	77.8	78.4	78.6	78.8
>= 4000	29.0	55.4	62.2	68.6	74.7	76.0	78.6	79.3	79.5	79.7
>= 3500	29.3	56.4	63.3	69.7	75.8	77.2	79.8	80.4	80.6	80.9
>= 3000	30.4	58.0	65.1	72.0	78.1	79.6	82.1	82.8	83.0	83.2
>= 2500	31.6	60.3	67.6	74.4	80.5	82.0	84.6	85.2	85.5	85.7
>= 2000	33.2	63.5	71.1	78.1	84.4	86.0	88.6	89.3	89.5	89.7
>= 1800	33.4	64.0	71.6	78.5	85.0	86.7	89.3	90.1	90.3	90.5
>= 1500	34.0	65.6	73.4	80.6	87.6	89.3	91.9	92.6	92.8	93.2
>= 1200	34.1	66.8	74.8	82.2	89.3	91.0	93.8	94.7	94.9	95.2
>= 1000	34.2	67.4	75.4	83.0	90.4	92.1	94.9	95.7	95.9	96.4
>= 900	34.2	67.6	75.7	83.3	90.7	92.4	95.2	96.0	96.3	96.9
>= 800	34.2	67.7	75.9	83.5	90.9	92.6	95.4	96.3	96.5	97.1
>= 700	34.2	67.7	75.9	83.5	90.9	92.7	95.6	96.6	96.8	97.4
>= 600	34.2	67.8	76.0	84.0	91.3	93.3	96.1	97.1	97.3	98.1
>= 500	34.2	67.8	76.1	84.1	91.4	93.4	96.3	97.3	97.5	98.3
>= 400	34.2	67.8	76.1	84.1	91.4	93.4	96.4	97.6	97.9	98.7
>= 300	34.2	67.8	76.1	84.1	91.6	93.5	96.5	97.9	98.1	98.9
>= 200	34.2	67.8	76.1	84.1	91.6	93.5	96.5	97.9	98.1	98.9
>= 100	34.2	67.8	76.1	84.1	91.6	93.5	96.5	97.9	98.1	98.9
>= 0	34.2	67.8	76.1	84.1	91.6	93.5	96.5	97.9	98.1	98.9

TOTAL NO. OF OBS : 935



## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=1	3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	28.2	49.9	55.4	58.9	60.5	60.9	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5
>=20000	29.3	53.0	58.7	62.5	64.2	64.6	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3
>=18000	29.4	53.8	59.6	63.5	65.2	65.6	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3
>=16000	29.5	53.9	59.7	63.6	65.4	65.8	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5
>=14000	30.1	55.5	61.5	65.8	67.8	68.2	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0
>=12000	31.1	57.3	63.5	67.9	70.1	70.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5
>=10000	32.2	59.6	65.8	70.5	72.8	73.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2
>= 9000	32.6	60.1	66.5	71.1	73.4	73.8	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9
>= 8000	33.4	62.5	68.9	73.8	76.1	76.6	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8
>= 7000	33.7	63.4	69.7	74.7	77.0	77.6	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7
>= 6000	33.9	63.6	69.9	75.0	77.3	77.9	79.0	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1
>= 5000	34.3	64.5	70.9	76.1	78.4	79.0	80.1	80.2	80.2	80.2	80.2	80.2	80.2	80.2	80.2	80.2	80.2	80.2
>= 4500	34.6	65.5	72.1	77.3	79.6	80.2	81.3	81.4	81.4	81.4	81.4	81.4	81.4	81.4	81.4	81.4	81.4	81.4
>= 4000	35.0	66.3	72.9	78.1	80.3	81.0	82.1	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2
>= 3500	35.8	67.5	74.1	79.2	81.5	82.2	83.2	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4
>= 3000	36.4	68.9	75.6	80.9	83.2	83.9	85.0	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1
>= 2500	37.5	71.2	78.1	83.5	86.1	86.7	87.8	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9
>= 2000	38.5	73.3	80.1	85.7	88.4	89.1	90.2	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3
>= 1800	38.7	73.6	80.5	86.2	88.9	89.5	90.6	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7
>= 1500	39.2	75.0	82.5	88.5	91.2	92.3	93.5	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6
>= 1200	39.6	76.1	83.9	90.2	93.1	94.2	95.6	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9
>= 1000	39.8	76.5	84.6	91.1	94.2	95.2	97.0	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3
>= 900	39.6	76.5	84.6	91.1	94.3	95.4	97.1	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4
>= 800	39.6	76.5	84.8	91.2	94.4	95.5	97.2	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5
>= 700	39.6	76.6	84.9	91.5	94.6	95.7	97.4	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8
>= 600	39.6	76.8	85.0	91.7	95.0	96.2	97.9	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4
>= 500	39.6	76.8	85.1	91.8	95.2	96.4	98.4	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8
>= 400	39.6	76.9	85.2	91.9	95.4	96.5	98.5	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
>= 300	39.6	76.9	85.2	91.9	95.4	96.5	98.5	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
>= 200	39.6	76.9	85.2	91.9	95.4	96.5	98.5	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
>= 100	39.6	76.9	85.2	91.9	95.4	96.5	98.5	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
>= 0	39.6	76.9	85.2	91.9	95.4	96.5	98.5	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9

TOTAL NO. OF OBS : 925

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV  
 HOUR : 1900 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	38.3	61.0	62.7	63.7	54.6	64.6	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8
>=20000	39.3	63.7	65.6	66.7	67.5	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8
>=19000	39.5	64.5	66.4	67.4	68.3	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5
>=16000	39.6	64.6	66.5	67.7	68.5	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7
>=14000	40.3	66.2	68.1	69.6	70.5	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7
>=12000	41.1	68.2	70.2	71.7	72.7	72.8	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0
>=10000	42.1	70.8	72.9	74.4	75.5	75.6	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8
>=9000	42.3	71.0	73.2	74.6	75.7	75.8	76.0	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1
>=8000	43.3	73.3	75.4	77.0	78.0	78.2	78.4	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5
>=7000	44.0	74.5	76.6	78.2	79.3	79.5	79.7	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8
>=6000	44.1	74.8	77.0	78.5	79.6	79.8	80.0	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1
>=5000	45.1	76.4	78.6	80.2	81.3	81.5	81.7	81.8	81.8	81.8	81.8	81.8	81.8	81.8	81.8	81.8
>=4500	45.5	77.2	79.5	81.1	82.1	82.3	82.6	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7
>=4000	45.7	77.6	79.9	81.5	82.6	82.9	83.1	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2
>=3500	46.2	78.9	81.2	82.8	83.8	84.1	84.4	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5
>=3000	47.3	80.4	82.8	84.4	85.4	85.7	85.9	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0
>=2500	47.9	82.3	84.8	86.5	87.5	87.8	88.1	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2
>=2000	49.0	84.8	87.4	89.2	90.3	90.6	90.8	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9
>=1800	49.4	85.7	88.4	90.3	91.3	91.6	91.9	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0
>=1500	49.8	87.0	90.1	92.2	93.3	93.7	93.9	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0
>=1200	50.3	88.4	91.5	93.9	95.0	95.3	95.6	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7
>=1000	50.4	89.2	92.8	95.3	96.5	96.8	97.0	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1
>=900	50.4	89.6	93.2	95.8	96.9	97.4	97.6	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7
>=800	50.4	90.0	93.6	96.1	97.3	97.7	97.9	98.0	98.0	98.1	98.1	98.1	98.1	98.1	98.1	98.1
>=700	50.4	90.3	93.9	96.4	97.6	98.0	98.3	98.4	98.4	98.5	98.5	98.5	98.5	98.5	98.5	98.5
>=600	50.4	90.5	94.2	96.7	98.1	98.6	98.9	99.0	99.0	99.2	99.2	99.2	99.2	99.2	99.2	99.2
>=500	50.4	90.5	94.2	96.8	98.4	98.9	99.3	99.4	99.4	99.6	99.6	99.6	99.6	99.6	99.6	99.6
>=400	50.4	90.5	94.2	96.9	98.5	99.0	99.5	99.6	99.6	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=300	50.4	90.5	94.2	96.9	98.6	99.2	99.6	99.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=200	50.4	90.5	94.2	96.9	98.6	99.2	99.6	99.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=100	50.4	90.5	94.2	96.9	98.6	99.2	99.6	99.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=0	50.4	90.5	94.2	96.9	98.6	99.2	99.6	99.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 946

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : NOV  
HOUR : 2200 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=1	3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	38.5	60.6	62.8	63.9	64.8	65.0	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.4	65.4	65.4	65.4
>=20000	39.4	63.1	65.8	66.9	67.9	68.1	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.4	68.4	68.4	68.4
>=18000	39.5	63.5	66.1	67.3	68.2	68.4	68.6	68.6	68.6	68.6	68.6	68.6	68.6	68.6	68.8	68.8	68.8	68.8
>=16000	39.7	63.7	66.3	67.5	68.4	68.6	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	69.0	69.0	69.0	69.0
>=14000	40.5	65.4	68.1	69.5	70.4	70.7	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	71.0	71.0	71.0	71.0
>=12000	41.0	66.5	69.6	71.1	72.0	72.4	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.7	72.7	72.7	72.7
>=10000	41.7	68.2	71.4	73.0	73.9	74.3	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.6	74.6	74.6	74.6
>=9000	41.9	68.9	72.0	73.6	74.6	74.9	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.2	75.2	75.2	75.2
>=8000	42.7	71.0	74.2	75.7	76.8	77.1	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.4	77.4	77.4	77.4
>=7000	43.1	71.5	74.7	76.3	77.3	77.6	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	78.0	78.0	78.0	78.0
>=6000	43.1	71.6	74.8	76.4	77.4	77.8	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.1	78.1	78.1	78.1
>=5000	44.2	73.2	76.4	78.1	79.2	79.6	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.9	79.9	79.9	79.9
>=4500	44.6	73.9	77.1	78.8	80.0	80.3	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.6	80.6	80.6	80.6
>=4000	44.9	75.1	78.3	80.1	81.3	81.6	81.8	81.8	81.8	81.8	81.8	81.8	81.8	81.8	81.9	81.9	81.9	81.9
>=3500	45.6	76.2	79.4	81.3	82.5	82.8	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.2	83.2	83.2	83.2
>=3000	46.2	78.0	81.3	83.4	84.7	85.1	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.4	85.4	85.4	85.4
>=2500	47.2	79.4	82.8	85.0	86.4	86.8	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.1	87.1	87.1	87.1
>=2000	48.2	81.3	84.6	86.9	88.3	88.7	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	89.0	89.0	89.0	89.0
>=1800	48.4	82.2	85.7	87.9	89.4	89.7	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	90.0	90.0	90.0	90.0
>=1500	49.3	84.4	88.0	90.5	92.2	92.5	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.8	92.8	92.8	92.8
>=1200	49.8	85.8	89.6	92.3	94.0	94.3	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.6	94.6	94.6	94.6
>=1000	50.3	87.4	91.2	93.9	95.7	96.0	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.3	96.3	96.3	96.3
>=900	50.4	88.0	91.8	94.5	96.3	96.6	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.9	96.9	96.9	96.9
>=800	50.4	88.2	92.3	95.0	96.8	97.2	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.7	97.7	97.7	97.7
>=700	50.4	88.3	92.4	95.1	96.9	97.4	97.7	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.9	97.9	97.9	97.9
>=600	50.6	88.9	92.9	95.8	97.6	98.1	98.6	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.8	98.8	98.8	98.8
>=500	50.6	89.0	93.0	96.1	97.9	98.4	98.9	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.2	99.2	99.2	99.2
>=400	50.6	89.0	93.1	96.3	98.2	98.7	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.6	99.6	99.6	99.6
>=300	50.6	89.0	93.1	96.3	98.3	98.8	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.8	99.8	99.8	99.8
>=200	50.6	89.0	93.1	96.3	98.3	98.8	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	100.0	100.0	100.0	100.0
>=100	50.6	89.0	93.1	96.3	98.3	98.8	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	100.0	100.0	100.0	100.0
>=0	50.6	89.0	93.1	96.3	98.3	98.8	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 944

## 2 - CEILING VS VISIBILITY

D23239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV  
 HOUR : ALL

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)																
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=2	>=1	1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	29.0	48.8	52.6	55.6	57.9	58.5	59.5	59.7	59.9	60.0	60.0	60.0	60.0	60.1	60.1	60.1	60.2
>=20000	29.9	51.1	55.2	58.3	60.7	61.3	62.3	62.6	62.7	62.8	62.9	62.9	62.9	63.0	63.0	63.0	63.1
>=18000	29.9	51.7	55.7	58.9	61.3	61.9	62.9	63.2	63.3	63.4	63.5	63.5	63.5	63.6	63.6	63.6	63.7
>=16000	30.1	51.9	55.9	59.2	61.6	62.2	63.2	63.5	63.6	63.7	63.8	63.8	63.8	63.9	63.9	63.9	64.0
>=14000	30.7	53.2	57.4	60.8	63.3	64.0	65.1	65.3	65.5	65.6	65.7	65.7	65.7	65.7	65.8	65.9	66.0
>=12000	31.6	54.9	59.3	62.8	65.4	66.0	67.2	67.5	67.6	67.8	67.8	67.8	67.8	67.9	67.9	68.0	68.1
>=10000	32.5	56.8	61.4	65.1	67.7	68.4	69.6	69.9	70.0	70.1	70.2	70.2	70.2	70.3	70.3	70.3	70.4
>= 9000	32.7	57.2	61.7	65.4	68.1	68.8	70.0	70.3	70.4	70.6	70.6	70.6	70.6	70.7	70.7	70.7	70.8
>= 8000	33.7	59.2	63.8	67.6	70.4	71.1	72.3	72.6	72.8	72.9	73.0	73.0	73.0	73.1	73.1	73.1	73.2
>= 7000	34.0	59.9	64.5	68.4	71.2	71.9	73.1	73.5	73.6	73.8	73.8	73.8	73.8	73.9	73.9	73.9	74.0
>= 6000	34.2	60.2	64.8	68.7	71.6	72.3	73.5	73.8	74.0	74.1	74.2	74.2	74.2	74.3	74.3	74.3	74.4
>= 5000	34.8	61.3	66.0	69.9	72.8	73.5	74.8	75.1	75.2	75.4	75.5	75.5	75.5	75.5	75.5	75.6	75.6
>= 4500	35.1	61.9	66.6	70.6	73.5	74.2	75.5	75.8	76.0	76.1	76.2	76.2	76.2	76.2	76.2	76.3	76.4
>= 4000	35.4	62.7	67.4	71.4	74.3	75.1	76.3	76.7	76.8	77.0	77.0	77.0	77.0	77.1	77.1	77.2	77.2
>= 3500	35.9	63.7	68.5	72.6	75.6	76.3	77.5	77.9	78.0	78.2	78.3	78.3	78.3	78.3	78.3	78.4	78.4
>= 3000	36.7	65.3	70.1	74.4	77.4	78.2	79.4	79.8	80.0	80.1	80.2	80.2	80.2	80.2	80.2	80.3	80.4
>= 2500	37.7	67.2	72.2	76.5	79.6	80.4	81.7	82.0	82.2	82.3	82.4	82.4	82.4	82.4	82.5	82.5	82.6
>= 2000	39.0	69.8	74.9	79.3	82.5	83.3	84.6	85.0	85.2	85.3	85.4	85.4	85.4	85.4	85.4	85.5	85.6
>= 1800	39.3	70.5	75.7	80.2	83.3	84.2	85.5	85.9	86.1	86.2	86.3	86.3	86.3	86.3	86.3	86.4	86.5
>= 1500	40.0	72.4	78.0	82.9	86.2	87.2	88.6	89.0	89.2	89.4	89.4	89.4	89.4	89.5	89.5	89.6	89.6
>= 1200	40.5	74.0	79.7	84.9	88.5	89.5	90.9	91.4	91.6	91.8	91.9	91.9	91.9	92.0	92.0	92.0	92.1
>= 1000	40.8	75.0	80.9	86.2	90.0	91.0	92.6	93.1	93.2	93.5	93.6	93.6	93.6	93.6	93.7	93.7	93.8
>= 900	40.9	75.4	81.3	86.7	90.5	91.5	93.2	93.7	93.8	94.2	94.3	94.3	94.3	94.3	94.4	94.4	94.5
>= 800	40.9	75.7	81.8	87.3	91.1	92.2	93.9	94.4	94.6	94.9	95.0	95.0	95.0	95.1	95.1	95.1	95.2
>= 700	41.0	76.1	82.2	87.8	91.7	92.8	94.6	95.1	95.3	95.6	95.7	95.7	95.7	95.8	95.8	95.9	96.0
>= 600	41.0	76.4	82.6	88.3	92.3	93.5	95.3	96.0	96.1	96.6	96.7	96.7	96.7	96.8	96.8	96.9	97.0
>= 500	41.1	76.5	82.8	88.6	92.7	93.9	95.8	96.5	96.7	97.2	97.4	97.4	97.4	97.5	97.5	97.6	97.6
>= 400	41.1	76.6	82.9	88.7	92.9	94.2	96.3	97.0	97.2	97.9	98.1	98.1	98.1	98.2	98.2	98.3	98.3
>= 300	41.1	76.6	82.9	88.7	93.1	94.4	96.5	97.3	97.5	98.3	98.5	98.5	98.5	98.8	98.8	98.8	98.9
>= 200	41.1	76.6	82.9	88.7	93.1	94.4	96.6	97.4	97.6	98.5	98.7	98.7	98.7	99.0	99.0	99.1	99.2
>= 100	41.1	76.6	82.9	88.7	93.1	94.4	96.6	97.4	97.6	98.5	98.8	98.8	98.8	99.1	99.1	99.2	99.5
>= 0	41.1	76.6	82.9	88.7	93.1	94.4	96.6	97.4	97.6	98.5	98.8	98.8	98.8	99.1	99.1	99.3	100.0

TOTAL NO. OF OBS : 7523

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : 0100 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)																TOTAL	MEAN
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	2	3	4	5	6		
N	3.5	5.4	3.3	.6	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.4	6.0
NNE	.5	1.1	.2	.1	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2	6.8
NE	.5	.5	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.8	6.3
ENE	.9	.7	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.8	4.1
E	2.4	2.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.0	4.2
ESE	2.2	3.5	1.2	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.6	5.3
SE	2.5	4.2	2.7	1.7	.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.6	7.0
SSE	.6	.9	.9	1.1	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.8	9.1
S	1.2	.9	.8	1.0	.2	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	4.4	8.9
SSW	.5	.6	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6	6.0
SW	.0	.5	.7	.3	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	10.3
WSW	.2	.3	.4	.5	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.5	9.6
W	.3	.6	.4	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0	8.7
WNW	.2	.9	.6	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.3	8.2
NW	1.5	3.2	1.9	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.0	5.5
NNW	2.4	4.9	2.2	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.3	5.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	21.9	.0
ALL	19.6	30.4	16.6	8.7	1.6	.9	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	100.0	5.1

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : 0400 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

16 PT.		1	3	4	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL	MEAN
DIR.															%	WIND SPEED
N	3.3	4.1	3.0	.9	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	11.6	6.0
NNE	1.6	1.5	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.5	3.9
NE	.8	1.0	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.4	4.8
ENE	.7	.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	4.3
E	3.3	2.5	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.4	4.0
ESE	2.0	2.8	1.5	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.1	5.7
SE	1.1	4.7	2.6	1.4	.3	.3	.1	.0	.0	.0	.0	.0	.0	.0	10.6	7.8
SSE	.5	1.6	1.4	1.0	.8	.1	.0	.0	.0	.0	.0	.0	.0	.0	5.4	9.5
S	.8	1.1	1.1	.5	.1	.0	.0	.0	.0	.0	.1	.0	.0	.0	3.7	8.1
SSW	.7	.0	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	5.6
SW	.1	.5	.4	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.5	8.1
WSW	.2	.4	.0	.1	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	1.1	10.7
W	.3	.7	.3	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.8	7.4
WNW	.6	.6	.6	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.3	7.1
NW	1.2	2.2	1.8	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.7	6.2
NNW	1.4	3.2	2.9	1.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.9	6.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	25.7	.0
ALL	18.8	27.3	17.1	8.3	1.9	.7	.1	.1	.1	.1	.1	.1	.1	.0	100.0	4.9

TOTAL NO. OF OBS : 492

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : 0700 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	SPEED (KNOTS)											TOTAL %	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56		
N	3.1	4.0	2.9	.6	.2	.0	.0	.0	.0	.0	.0	10.8	5.7
NNE	1.8	1.3	.3	.1	.2	.1	.0	.0	.0	.0	.0	3.8	5.1
NE	.6	.6	.4	.0	.0	.1	.0	.0	.0	.0	.0	1.7	6.1
ENE	1.8	1.2	.6	.1	.0	.0	.0	.0	.0	.0	.0	3.7	4.2
E	3.4	2.6	.6	.1	.0	.0	.0	.0	.0	.0	.0	6.8	9.0
ESE	1.8	3.6	1.2	.8	.0	.0	.0	.0	.0	.0	.0	7.5	5.7
SE	2.2	3.6	3.1	1.6	.6	.2	.1	.0	.0	.0	.0	11.5	7.6
SSE	2.3	2.3	1.5	1.4	.3	.3	.1	.0	.0	.0	.0	8.3	7.9
S	1.3	1.0	.4	.6	.1	.5	.0	.0	.0	.0	.0	3.9	8.6
SSW	.7	.6	.1	.1	.1	.0	.0	.0	.0	.0	.0	1.6	5.2
SW	.0	.2	.8	.1	.1	.0	.0	.0	.0	.0	.0	1.2	9.1
WSW	.3	.0	.0	.2	.1	.0	.0	.0	.0	.0	.0	.6	8.8
W	.2	.6	.5	.7	.0	.1	.0	.0	.0	.0	.0	2.1	9.3
WNW	.8	.5	.5	.5	.1	.0	.0	.0	.0	.0	.0	2.4	7.3
NW	1.7	1.9	1.3	.4	.0	.0	.0	.0	.0	.0	.0	5.3	5.6
NNW	.8	3.6	1.8	1.0	.2	.0	.0	.0	.0	.0	.0	7.5	6.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	21.3	.0
ALL	23.0	27.8	16.0	8.4	2.0	1.3	.2	.0	.0	.0	.0	103.0	5.1

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : 1000 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	SPEED (KNOTS)											TOTAL %	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56		
N	2.0	3.0	1.7	1.0	.4	.1	.1	.0	.0	.0	.0	8.4	7.3
NNE	.5	.8	.5	.1	.1	.0	.0	.0	.0	.0	.0	2.0	6.0
NE	.3	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.5	6.2
ENE	.5	.5	.1	.1	.0	.0	.0	.0	.0	.0	.0	1.2	4.7
E	1.2	1.5	.7	.0	.0	.0	.0	.0	.0	.0	.0	3.4	4.7
ESE	1.0	1.8	1.5	.5	.2	.0	.0	.0	.0	.0	.0	5.0	6.8
SE	2.0	3.9	3.5	1.9	.7	.0	.0	.1	.0	.0	.0	12.2	8.0
SSE	2.6	4.2	2.7	.9	.7	.1	.2	.0	.0	.0	.0	11.5	7.2
S	4.9	3.6	.8	.6	.4	.2	.0	.0	.0	.0	.0	10.6	5.3
SSW	.6	.2	.8	.1	.0	.1	.0	.0	.0	.0	.0	1.8	7.1
SW	.6	.7	.0	.1	.1	.2	.0	.0	.0	.0	.0	1.7	7.7
WSW	1.0	.5	.2	.4	.0	.0	.0	.0	.0	.0	.0	2.1	5.4
W	1.2	.7	.6	.7	.2	.0	.0	.0	.0	.0	.0	3.4	7.1
WNW	.7	.8	.6	.8	.0	.0	.0	.0	.0	.0	.0	2.9	7.1
NW	1.5	2.8	1.8	.9	.2	.0	.0	.0	.0	.0	.0	7.3	6.7
NNW	2.3	3.5	3.0	.9	.1	.1	.0	.0	.0	.0	.0	10.0	6.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15.9	.0
ALL	23.1	28.8	18.6	9.1	3.2	.8	.3	.1	.0	.0	.0	100.0	5.6

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05



# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : 1300 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT.		SPEED (KNOTS)																TOTAL		MEAN	
DIR.		1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>50			%	WIND SPEED					
N	1.2	2.7		1.6	.7	.4	.2	.0	.0	.0	.0	.0	.0	6.9		7.6					
NNE	.2	.7		.1	.3	.1	.0	.0	.0	.0	.0	.0	.0	1.4		7.5					
NE	.1	.7		.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	1.3		7.9					
ENE	.4	.4		.5	.2	.1	.0	.0	.0	.0	.0	.0	.0	1.6		7.1					
E	.2	.5		.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9		5.0					
ESE	.3	.5		.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6		6.1					
SE	.3	2.0		1.0	2.1	.2	.2	.1	.0	.0	.0	.0	.0	5.9		5.4					
SSE	1.6	2.2		1.0	1.1	.3	.3	.0	.0	.0	.0	.0	.0	6.6		7.7					
S	3.3	5.0		1.4	.8	.2	.6	.0	.0	.0	.0	.0	.0	11.4		6.3					
SSW	2.0	2.0		.6	.1	.1	.0	.0	.0	.0	.0	.0	.0	4.8		4.8					
SW	2.2	2.0		.3	.2	.1	.1	.0	.0	.0	.0	.0	.0	4.9		4.9					
WSW	1.5	2.3		.3	.4	.1	.2	.0	.0	.0	.0	.0	.0	4.8		6.2					
W	1.8	2.6		1.3	1.2	.3	.1	.0	.0	.0	.0	.0	.0	7.4		7.0					
WNW	.7	2.4		1.7	.8	.2	.0	.1	.0	.0	.0	.0	.0	5.9		7.6					
NW	1.9	5.8		5.4	2.1	.2	.0	.0	.0	.0	.0	.0	.0	15.5		7.1					
NNW	.9	4.5		5.8	1.9	.2	.0	.0	.0	.0	.0	.0	.0	13.4		7.7					
VAR	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0					
CLM	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.5		.0					
ALL	18.8	36.6		22.4	12.2	2.6	1.7	.2	.0	.0	.0	.0	.0	100.0		6.7					

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : 1600 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT.		SPEED (KNOTS)																TOTAL %		MEAN WIND SPEED	
DIR.		1 - 3	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56									
N		.5	1.6	2.0	.7	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.4	8.9				
NNE		.2	.7	.3	.5	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.8	8.0				
NE		.3	.8	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.8	6.7				
ENE		.3	1.6	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.4	5.4				
E		.1	1.1	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6	5.9				
ESE		.3	.7	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.4	6.4				
SE		.6	1.0	1.0	1.3	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	4.3	9.7				
SSE		1.4	1.7	.5	1.1	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	5.0	7.3				
S		2.6	1.9	.7	.9	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	6.9	6.9				
SSW		1.2	.3	.6	.7	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	3.0	7.7				
SW		.8	.7	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	5.5				
WSW		1.1	1.5	.3	.9	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.9	6.5				
W		2.6	2.2	4.1	2.0	.3	.0	.0	.1	.0	.0	.0	.0	.0	.0	11.4	7.8				
WNW		1.0	4.5	2.6	1.9	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	10.4	7.4				
NW		1.9	6.2	7.1	1.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	17.2	7.1				
NNW		1.3	6.0	4.3	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.9	6.7				
VAR		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0				
CLM		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.3	.0				
ALL		16.3	32.6	25.6	13.6	2.4	.9	.1	.1	.0	.0	.0	.0	.0	.0	100.0	6.7				

TOTAL NO. OF OBS : 991

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : 1900 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT.		SPEED (KNOTS)																TOTAL		MEAN	
DIR.		1	- 3	4	- 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	#	WIND					
N		2.9	4.5	1.5		7		.4	.0	.0	.0	.0	.0	.0	10.1	5.7					
NNE		1.1	1.0	.1		.2		.0	.1	.0	.0	.0	.0	.0	2.5	5.2					
NE		1.1	.6	.4		.0		.0	.0	.0	.0	.0	.0	.0	2.1	3.9					
ENE		1.0	1.0	.2		.0		.0	.0	.0	.0	.0	.0	.0	2.2	4.0					
E		1.2	1.7	.7		.0		.0	.0	.0	.0	.0	.0	.0	3.6	4.5					
ESE		1.1	1.0	.6		.0		.1	.1	.0	.0	.0	.0	.0	2.9	5.7					
SE		1.0	1.4	.9		1.5		.2	.0	.0	.0	.0	.0	.0	5.0	8.3					
SSE		1.1	1.0	.6		1.0		.5	.0	.1	.0	.0	.0	.0	4.3	8.9					
S		1.3	1.3	.8		.9		.2	.1	.0	.1	.0	.0	.0	4.7	8.0					
SSW		.5	1.0	.2		.5		.0	.0	.0	.0	.0	.0	.0	2.2	6.6					
SW		.9	.1	.0		.1		.0	.1	.0	.0	.0	.0	.0	1.2	5.1					
WSW		.8	.9	.5		.2		.1	.0	.0	.0	.0	.0	.0	2.5	6.4					
W		1.2	2.1	1.7		.9		.2	.0	.0	.0	.0	.0	.0	6.2	7.1					
WNW		1.3	1.7	1.2		.3		.0	.0	.0	.0	.0	.0	.0	4.5	5.8					
NW		1.9	5.0	2.9		1.2		.1	.1	.0	.0	.0	.0	.0	11.3	6.5					
NNW		2.4	7.5	5.0		1.3		.1	.0	.0	.0	.0	.0	.0	16.3	6.2					
VAR		.0	.0	.0		.0		.0	.0	.0	.0	.0	.0	.0	.0	.0					
CLM		.0	.0	.0		.0		.0	.0	.0	.0	.0	.0	.0	18.1	.0					
ALL		21.0	32.0	17.5		8.0		1.9	.5	.1	.1	.0	.0	.0	100.0	5.2					

TOTAL NO. OF OBS : 991

NOTES :  
 # = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : 2200 LST

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)																TOTAL	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	1	2	3	4	5		
N	3.1	5.4	2.4	1.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.4	5.9
NNE	1.1	.8	.2	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.4	5.3
NE	1.1	.5	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	3.5
ENE	.2	1.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.8	5.6
E	1.9	2.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.2	3.8
ESE	2.3	2.5	1.4	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.0	5.6
SE	1.5	3.2	1.3	1.2	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.9	7.3
SSE	1.3	1.2	1.0	1.4	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.3	8.6
S	.6	.9	.8	1.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.6	8.8
SSW	.4	.6	.3	.2	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6	7.8
SW	.3	.2	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	6.1
WSW	.2	.3	1.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	8.2
W	.5	1.1	1.3	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.3	7.0
WNW	.4	.7	1.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.8	7.9
NW	1.0	3.3	3.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.9	6.5
NNW	2.5	6.3	3.5	1.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.8	6.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	21.6	.0
ALL	18.6	30.5	18.1	8.9	1.9	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	5.1

TOTAL NO. OF OBS : 691

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : ALL

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

DIP.	SPEED (KNOTS)												TOTAL	MEAN
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	%		
N	2.5	3.9	2.3	.8	.3	.1	.0*	.0	.0	.0	.0	9.9	6.4	
NNE	.9	1.0	.3	.2	.1	.1	.0	.0	.0	.0	.0	2.5	5.6	
NE	.6	.6	.3	.1	.0*	.0*	.0	.0	.0	.0	.0	1.7	5.5	
ENE	.7	.9	.3	.1	.0*	.0	.0	.0	.0	.0	.0	2.0	4.8	
E	1.7	1.8	.4	.1	.0	.0	.0	.0	.0	.0	.0	4.0	4.3	
ESE	1.4	2.1	1.1	.4	.1	.0*	.0	.0	.0	.0	.0	5.0	5.8	
SE	1.4	3.0	2.0	1.6	.4	.1	.1	.0*	.0	.0	.0	8.6	7.9	
SSE	1.4	1.9	1.2	1.1	.4	.2	.1	.0	.0	.0	.0	6.3	8.1	
S	2.0	2.0	.9	.8	.2	.2	.0*	.0*	.0	.0	.0	6.2	7.1	
SSW	.8	.7	.4	.3	.0*	.0*	.0	.0	.0	.0	.0	2.2	6.2	
SW	.6	.6	.4	.2	.1	.1	.0	.0	.0	.0	.0	1.9	6.6	
WSW	.7	.8	.4	.3	.1	.1	.0*	.0	.0	.0	.0	2.3	7.0	
W	1.0	1.3	1.3	.9	.2	.0*	.0	.0*	.0	.0	.0	4.7	7.5	
WNW	.7	1.5	1.1	.8	.1	.0*	.0*	.0	.0	.0	.0	4.2	7.3	
NW	1.6	3.8	3.2	.9	.1	.0*	.0	.0	.0	.0	.0	9.6	6.6	
NNW	1.8	4.9	3.6	1.2	.2	.0*	.0	.0	.0	.0	.0	11.6	6.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17.3	.0	
ALL	19.9	30.8	19.0	9.7	2.2	.9	.2	.1	.7	.0	.0	100.0	5.5	

TOTAL NO. OF OBS : 7933

NOTES :  
 \* = PERCENT < .05

# 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : ANN  
 HOUR : ALL

## PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

16 PT. DIR.		1	3	4	6	7-10	11-16	17-21	SPEED (KNOTS)					TOTAL %					MEAN WIND SPEED	
DIR.		1	3	4	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56						
N		1.4	2.0			1.1	.5	.1	.0*	.0*	.0	.0	.0	.0	5.2	6.2				
NNE		.5	.5			.2	.1	.0*	.0*	.0	.0	.0	.0	.0	1.3	5.4				
NE		.3	.3			.1	.1	.0*	.0*	.0	.0	.0	.0	.0	.9	5.1				
ENE		.2	.3			.1	.0*	.0*	.0	.0	.0	.1	.0	.0	.6	4.9				
E		.8	.9			.3	.0*	.0*	.0*	.0	.0	.0	.0	.0	2.0	4.5				
ESE		.7	1.3			.6	.2	.1	.0*	.0*	.0*	.0	.0	.0	2.9	5.9				
SE		.7	1.3			1.0	.7	.2	.1	.0*	.0*	.0	.0	.0	4.1	8.2				
SSE		.6	1.0			.7	.5	.2	.1	.0*	.0*	.0	.0	.0	3.1	8.3				
S		1.1	1.6			.9	.6	.2	.1	.0*	.0*	.0	.0	.0	4.6	7.0				
SSW		.7	1.2			.8	.4	.1	.0*	.0*	.0	.0	.0	.0	3.2	6.7				
SW		.9	1.9			2.0	.9	.1	.0*	.0*	.0	.0	.0	.0	5.7	7.3				
WSW		1.0	2.6			3.6	2.1	.2	.0*	.0*	.0	.0	.0	.0	9.6	8.2				
W		1.6	4.8			9.2	8.1	1.3	.2	.0*	.0*	.0	.0	.0	25.2	9.6				
WNW		.9	2.5			3.4	2.0	.3	.1	.0*	.0	.0	.0	.0	9.2	8.4				
NW		1.1	2.6			2.3	.8	.1	.0*	.0	.0	.0	.0	.0	7.0	6.9				
NNW		1.0	2.4			1.7	.7	.1	.0*	.0	.0	.0	.0	.0	5.9	6.8				
VAR		.0	.0			.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0				
CLM		.0	.0			.0	.0	.0	.0	.0	.0	.0	.0	.0	9.4	.0				
ALL		13.7	27.3			27.8	17.9	3.0	.7	.1	.0*	.0	.0	.0	100.0	7.1				

TOTAL NO. OF OBS : 93483

NOTES : \* = PERCENT < .05

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : 0100 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2 1/2	>=1 1/2	>=1 1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	23.9	43.8	47.7	52.2	54.9	55.9	57.3	57.7	57.8	57.9	58.1	58.1	58.1	58.1	58.2	58.4
>=20000	24.6	45.7	49.6	54.0	56.8	57.7	59.2	59.8	59.9	60.0	60.2	60.2	60.2	60.2	60.3	60.5
>=18000	24.8	46.1	50.0	54.4	57.2	58.1	59.7	60.3	60.4	60.5	60.7	60.7	60.7	60.7	60.8	61.0
>=16000	24.9	46.2	50.1	54.5	57.3	58.2	59.8	60.4	60.5	60.6	60.8	60.8	60.8	60.8	60.9	61.1
>=14000	25.3	46.8	50.8	55.4	58.2	59.1	60.7	61.3	61.4	61.6	61.8	61.8	61.8	61.8	61.9	62.1
>=12000	25.9	47.6	51.8	56.8	59.8	60.8	62.3	62.9	63.0	63.2	63.4	63.4	63.4	63.4	63.6	63.8
>=10000	26.5	48.6	52.9	57.8	60.9	61.9	63.4	64.1	64.2	64.4	64.6	64.6	64.6	64.6	64.7	64.9
>=9000	26.8	49.0	53.3	58.2	61.3	62.3	63.9	64.5	64.6	64.9	65.1	65.1	65.1	65.1	65.2	65.4
>=8000	27.6	50.5	54.9	60.1	63.1	64.2	65.7	66.3	66.4	66.7	66.9	66.9	66.9	66.9	67.0	67.2
>=7000	28.0	51.2	55.7	60.9	64.0	65.0	66.5	67.1	67.2	67.6	67.8	67.8	67.8	67.8	67.9	68.1
>=6000	28.1	51.5	56.1	61.2	64.3	65.3	66.8	67.5	67.6	67.9	68.1	68.1	68.1	68.1	68.2	68.4
>=5000	29.0	53.0	57.5	62.8	66.1	67.1	68.7	69.3	69.4	69.7	69.9	69.9	69.9	69.9	70.0	70.2
>=4500	29.9	54.3	58.8	64.2	67.5	68.5	70.0	70.6	70.7	71.0	71.3	71.3	71.3	71.3	71.4	71.6
>=4000	30.4	54.9	59.4	64.8	68.2	69.2	70.7	71.5	71.6	71.9	72.1	72.1	72.1	72.1	72.2	72.4
>=3500	30.9	55.6	60.6	65.2	68.9	70.3	71.9	72.7	72.8	73.1	73.3	73.3	73.3	73.3	73.4	73.6
>=3000	31.6	58.4	63.1	68.6	72.0	73.0	74.5	75.4	75.5	75.8	76.0	76.0	76.0	76.0	76.1	76.3
>=2500	32.2	60.0	64.7	70.1	73.6	74.7	76.4	77.2	77.3	77.6	77.8	77.8	77.8	77.8	77.9	78.1
>=2000	34.0	63.6	68.7	74.1	77.8	79.0	80.6	81.4	81.5	81.8	82.0	82.0	82.0	82.0	82.1	82.3
>=1800	34.2	64.4	69.6	75.2	78.9	80.1	81.7	82.5	82.6	83.0	83.2	83.2	83.2	83.2	83.3	83.5
>=1500	34.8	65.7	71.3	77.0	81.1	82.4	84.1	84.9	85.0	85.3	85.5	85.5	85.5	85.5	85.6	85.8
>=1200	35.1	66.9	72.5	78.5	83.2	84.5	86.1	87.0	87.1	87.4	87.6	87.6	87.6	87.6	87.7	87.9
>=1000	35.6	68.2	74.0	80.5	85.1	86.4	88.2	89.2	89.3	89.6	89.8	89.8	89.8	89.8	89.9	90.1
>=900	35.8	68.7	74.6	81.2	85.9	87.3	89.1	90.1	90.2	90.6	90.8	90.8	90.8	90.8	90.9	91.1
>=800	36.0	69.3	75.6	82.2	87.1	88.4	90.2	91.3	91.4	91.7	91.9	91.9	91.9	91.9	92.0	92.2
>=700	36.0	69.7	76.1	82.9	88.0	89.4	91.4	92.6	92.7	93.0	93.2	93.2	93.2	93.2	93.3	93.5
>=600	36.1	70.0	76.5	83.4	88.9	90.3	92.4	93.6	93.7	94.0	94.3	94.3	94.3	94.3	94.4	94.6
>=500	36.1	70.1	76.6	83.7	89.3	90.8	92.8	94.1	94.3	94.6	94.8	94.8	94.8	94.8	94.9	95.1
>=400	36.1	70.1	76.9	84.0	89.7	91.2	93.2	94.7	94.8	95.2	95.4	95.4	95.4	95.4	95.5	95.7
>=300	36.1	70.2	77.0	84.2	90.0	91.6	93.6	95.2	95.3	95.9	96.4	96.4	96.4	96.4	96.5	96.7
>=200	36.1	70.2	77.0	84.2	90.0	91.6	93.6	95.3	95.4	96.0	96.5	96.5	96.6	96.6	96.8	97.0
>=100	36.1	70.2	77.0	84.2	90.0	91.7	93.7	95.4	95.5	96.1	96.6	96.6	97.0	97.1	97.6	98.2
>=0	36.1	70.2	77.0	84.2	90.0	91.7	93.7	95.4	95.5	96.1	96.6	96.6	97.0	97.1	97.6	100.0

TOTAL NO. OF OBS : 974

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : DEC  
HOUR : 0400 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/4	>=0
UNLIMIT	23.4	41.3	45.1	50.4	53.3	54.1	55.2	55.5	55.5	55.6
>=20000	23.8	42.1	45.9	51.2	54.1	54.9	56.0	56.3	56.3	56.4
>=18000	24.0	42.3	46.1	51.4	54.3	55.1	56.3	56.6	56.6	56.7
>=16000	24.1	42.7	46.4	51.7	54.6	55.4	56.6	56.9	57.0	57.0
>=14000	24.3	43.2	47.0	52.6	55.5	56.3	57.6	58.0	58.1	58.1
>=12000	25.3	44.5	48.4	54.1	57.1	58.0	59.2	59.6	59.7	59.7
>=10000	25.9	45.8	49.9	55.7	58.9	59.8	61.0	61.4	61.5	61.5
>=9000	26.0	46.0	50.2	56.0	59.2	60.1	61.3	61.7	61.8	61.8
>=8000	26.6	46.9	51.2	57.0	60.3	61.3	62.6	63.0	63.1	63.1
>=7000	26.8	48.2	52.6	58.4	61.6	62.7	64.0	64.4	64.6	64.7
>=6000	26.9	48.5	52.9	58.7	61.9	63.0	64.3	64.7	64.9	65.0
>=5000	27.4	49.3	53.9	59.7	63.0	64.1	65.4	65.8	66.0	66.1
>=4500	28.1	50.2	54.8	60.6	63.9	65.0	66.3	66.8	67.0	67.1
>=4000	28.4	50.8	55.4	61.3	64.6	65.7	67.1	67.7	67.9	68.0
>=3500	28.8	51.5	56.1	62.1	65.4	66.5	68.0	68.5	68.7	68.8
>=3000	30.4	54.6	59.4	65.6	68.9	70.0	71.4	71.9	72.1	72.2
>=2500	31.5	56.7	61.9	68.3	71.5	72.8	74.2	74.7	74.9	75.0
>=2000	32.9	59.5	65.0	71.3	74.7	75.9	77.3	77.9	78.1	78.2
>=1800	33.3	60.5	66.0	72.3	75.7	76.9	78.4	79.0	79.2	79.3
>=1500	33.7	62.9	68.6	75.1	78.6	79.9	81.3	81.9	82.1	82.2
>=1200	33.8	63.6	69.3	76.0	79.8	81.1	82.6	83.2	83.4	83.5
>=1000	34.3	65.3	71.0	78.1	81.9	83.3	85.2	85.8	86.0	86.1
>=900	34.4	66.0	71.8	79.1	83.1	84.5	86.5	87.2	87.6	87.7
>=800	34.4	66.4	72.7	80.0	84.3	85.9	88.0	88.7	89.0	89.1
>=700	34.5	66.8	73.2	80.5	84.9	86.7	89.1	89.8	90.1	90.2
>=600	34.5	66.9	73.6	81.1	86.0	88.0	90.6	91.3	91.7	91.8
>=500	34.5	67.3	74.0	81.7	86.9	89.0	91.7	92.7	93.4	93.6
>=400	34.5	67.4	74.2	81.9	87.1	89.3	92.3	93.4	94.2	94.5
>=300	34.5	67.4	74.2	81.9	87.2	89.5	92.7	93.8	94.8	95.1
>=200	34.5	67.4	74.2	81.9	87.2	89.5	93.0	94.1	95.1	95.6
>=100	34.5	67.4	74.2	81.9	87.2	89.5	93.0	94.2	95.2	95.8
>=0	34.5	67.4	74.2	81.9	87.2	89.5	93.0	94.2	95.2	95.8

TOTAL NO. OF OBS : 980



## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : DEC  
HOUR : 0700 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=1	3/4	>=5/8	>=1/2	>=5/16
UNLIMIT	18.9	33.0	36.8	41.0	45.0	46.5	48.7	49.0	49.2	49.9	49.9	49.9	49.9	49.9	49.9	50.1
>=20000	19.3	33.9	37.8	42.0	46.1	47.7	50.1	50.4	50.6	51.3	51.3	51.3	51.3	51.3	51.3	51.4
>=18000	19.4	34.2	38.1	42.3	46.5	48.0	50.4	50.7	50.9	51.6	51.6	51.6	51.6	51.6	51.6	51.7
>=16000	19.4	34.2	38.1	42.3	46.5	48.0	50.5	50.8	51.0	51.7	51.7	51.7	51.7	51.7	51.7	51.8
>=14000	19.9	35.4	39.4	43.7	47.9	49.4	51.9	52.4	52.6	53.3	53.3	53.3	53.3	53.3	53.4	53.6
>=12000	21.2	36.8	40.9	45.2	49.4	51.1	53.5	54.3	54.5	55.3	55.3	55.3	55.3	55.3	55.4	55.6
>=10000	21.9	37.8	42.1	46.8	51.5	53.1	55.7	56.5	56.7	57.6	57.6	57.6	57.6	57.6	57.7	57.9
>=9000	22.0	38.1	42.4	47.1	51.8	53.4	56.0	56.9	57.1	58.0	58.0	58.0	58.0	58.0	58.1	58.3
>=8000	22.8	39.7	44.0	48.7	53.5	55.2	57.8	58.9	59.1	59.9	59.9	59.9	59.9	59.9	60.0	60.2
>=7000	23.0	40.1	44.4	49.1	54.1	55.7	58.3	59.4	59.6	60.4	60.4	60.4	60.4	60.4	60.5	60.7
>=6000	23.1	40.3	44.6	49.3	54.3	55.9	58.5	59.6	59.8	60.6	60.6	60.6	60.6	60.6	60.7	60.9
>=5000	23.4	41.5	45.9	50.8	55.7	57.3	59.9	61.0	61.3	62.1	62.1	62.1	62.1	62.1	62.2	62.4
>=4500	23.9	42.8	47.2	52.0	56.9	58.6	61.2	62.3	62.5	63.3	63.3	63.3	63.3	63.3	63.4	63.6
>=4000	24.6	43.6	48.0	52.8	58.0	59.6	62.3	63.4	63.6	64.4	64.4	64.4	64.4	64.4	64.5	64.7
>=3500	25.1	44.5	49.0	53.9	59.1	60.7	63.5	64.6	64.9	65.7	65.7	65.7	65.7	65.7	65.8	66.0
>=3000	26.3	46.9	51.5	56.5	61.8	63.4	66.3	67.4	67.6	68.4	68.4	68.4	68.4	68.4	68.6	68.8
>=2500	27.6	49.6	54.5	59.6	64.9	66.7	69.6	70.7	70.9	71.7	71.7	71.7	71.7	71.7	71.8	72.0
>=2000	29.2	53.3	58.3	63.5	69.3	71.1	74.1	75.2	75.4	76.3	76.3	76.3	76.3	76.3	76.5	76.7
>=1800	29.8	54.4	59.3	64.6	70.4	72.3	75.3	76.5	76.7	77.5	77.5	77.5	77.5	77.5	77.7	77.9
>=1500	30.2	55.8	60.9	66.7	73.1	74.9	78.4	79.5	79.8	80.6	80.6	80.6	80.6	80.6	80.8	81.0
>=1200	30.5	56.7	62.0	68.0	74.6	76.5	80.1	81.2	81.4	82.2	82.2	82.2	82.2	82.2	82.4	82.6
>=1000	30.6	57.8	63.3	70.4	77.1	78.9	82.6	83.8	84.0	84.9	84.9	84.9	84.9	84.9	85.1	85.3
>=900	30.6	58.0	63.8	71.1	78.1	80.1	83.8	84.9	85.1	86.0	86.0	86.0	86.0	86.0	86.2	86.4
>=800	30.6	58.3	64.2	71.7	78.7	80.7	84.5	85.6	85.8	86.8	86.8	86.8	86.8	86.8	87.2	87.4
>=700	30.6	58.6	64.6	72.6	80.0	82.2	86.3	87.6	87.8	88.9	88.9	88.9	88.9	88.9	89.2	89.4
>=600	30.6	58.8	65.1	73.3	80.9	83.2	87.7	89.0	89.2	90.4	90.4	90.4	90.4	90.4	90.8	91.0
>=500	30.6	59.0	65.3	73.8	81.4	83.9	88.4	89.9	90.1	91.4	91.4	91.4	91.4	91.4	91.7	91.9
>=400	30.6	59.0	65.3	73.9	81.5	84.0	88.7	90.2	90.4	92.0	92.0	92.0	92.0	92.0	92.7	93.3
>=300	30.6	59.0	65.4	74.1	81.8	84.3	89.3	91.0	91.2	92.8	92.8	92.8	92.8	92.8	93.7	94.5
>=200	30.6	59.0	65.4	74.1	81.8	84.4	89.4	91.1	91.3	93.2	93.2	93.2	93.2	93.2	94.2	95.3
>=100	30.6	59.0	65.4	74.1	81.8	84.4	89.4	91.2	91.4	93.4	93.4	93.4	93.4	93.4	94.5	95.1
>=0	30.6	59.0	65.4	74.1	81.8	84.4	89.4	91.3	91.5	93.5	93.5	93.5	93.5	93.5	94.6	95.2

TOTAL NO. OF OBS : 973

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : DEC  
HOUR : 1000 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	18.6	30.7	34.4	39.1	42.4	44.2	46.4	47.7	47.8	48.3	48.7	48.7	48.7	48.7	48.9	49.0	49.1	49.2
>=20000	19.6	32.7	36.7	41.7	45.4	47.3	50.0	51.4	51.6	52.2	52.5	52.5	52.5	52.5	52.7	52.8	52.9	53.0
>=18000	19.7	33.0	37.1	42.1	45.9	47.7	50.5	52.0	52.1	52.7	53.0	53.0	53.0	53.0	53.2	53.3	53.4	53.5
>=16000	19.7	33.0	37.1	42.1	45.9	47.7	50.5	52.0	52.1	52.7	53.0	53.0	53.0	53.0	53.2	53.3	53.4	53.5
>=14000	19.9	33.9	38.0	43.4	47.5	49.5	52.6	54.1	54.2	54.9	55.2	55.2	55.2	55.2	55.4	55.5	55.6	55.7
>=12000	20.8	35.5	40.1	45.8	49.9	51.9	55.2	56.8	57.0	57.7	58.0	58.0	58.0	58.0	58.2	58.3	58.4	58.5
>=10000	21.7	36.7	41.6	47.4	52.0	54.4	57.6	59.3	59.5	60.1	60.5	60.6	60.6	60.6	60.8	60.9	61.0	61.1
>= 9000	21.8	36.9	41.8	47.7	52.3	54.3	57.9	59.7	59.9	60.6	60.9	61.0	61.0	61.0	61.2	61.3	61.4	61.5
>= 8000	22.5	37.9	43.0	49.0	53.6	55.8	59.3	61.3	61.5	62.1	62.4	62.5	62.5	62.5	62.7	62.8	62.9	63.0
>= 7000	22.8	38.4	43.5	49.5	54.2	56.4	59.9	61.9	62.1	62.7	63.0	63.1	63.1	63.1	63.4	63.5	63.6	63.7
>= 6000	23.3	38.9	44.0	50.0	54.8	57.0	60.6	62.5	62.7	63.4	63.7	63.8	63.8	63.8	64.0	64.1	64.2	64.3
>= 5000	23.7	40.6	45.8	51.8	56.6	58.9	62.4	64.4	64.7	65.3	65.6	65.7	65.7	65.7	65.9	66.0	66.1	66.3
>= 4500	24.1	41.4	46.7	52.7	57.7	59.9	63.5	65.5	65.8	66.5	66.8	66.9	66.9	67.1	67.2	67.3	67.4	67.4
>= 4000	24.4	41.7	47.0	53.0	58.1	60.4	64.0	66.1	66.5	67.1	67.4	67.5	67.5	67.7	67.8	67.9	68.0	68.0
>= 3500	24.8	42.9	48.2	54.3	59.5	61.8	65.4	67.6	67.9	68.5	68.8	68.9	68.9	69.2	69.3	69.4	69.5	69.5
>= 3000	25.2	43.8	49.4	55.6	60.9	63.1	67.1	69.4	69.7	70.3	70.7	70.8	71.0	71.1	71.2	71.3	71.4	71.5
>= 2500	25.8	44.9	50.7	57.2	62.7	65.0	69.3	71.5	71.8	72.5	72.9	73.0	73.2	73.3	73.4	73.5	73.6	73.7
>= 2000	26.5	47.3	53.4	60.1	65.9	68.4	72.8	75.1	75.5	76.1	76.5	76.6	76.8	76.9	77.0	77.1	77.2	77.3
>= 1800	26.7	48.0	54.2	61.2	67.1	69.6	73.9	76.2	76.6	77.2	77.6	77.7	78.0	78.1	78.2	78.3	78.4	78.5
>= 1500	27.0	49.5	56.5	63.8	70.1	72.6	77.0	79.7	80.2	80.8	81.3	81.4	81.7	81.8	81.9	82.0	82.1	82.2
>= 1200	27.3	50.8	58.1	65.6	72.0	74.5	79.0	81.7	82.2	82.8	83.2	83.3	83.6	83.7	83.9	84.0	84.1	84.2
>= 1000	27.3	51.7	59.4	67.6	74.4	77.0	81.7	84.5	85.0	85.6	86.0	86.1	86.4	86.5	86.6	86.7	86.8	86.9
>= 900	27.3	51.8	59.6	67.9	74.9	77.5	82.4	85.6	86.1	86.9	87.3	87.4	87.7	87.8	87.9	88.0	88.1	88.2
>= 800	27.3	51.9	59.8	68.4	75.7	78.4	84.0	87.3	87.8	88.5	88.9	89.0	89.3	89.4	89.5	89.6	89.7	89.8
>= 700	27.3	52.1	60.0	68.7	76.3	79.0	84.8	88.5	89.0	89.9	90.4	90.5	90.8	90.9	91.0	91.1	91.2	91.3
>= 600	27.3	52.2	60.1	68.9	76.9	79.6	85.9	89.9	90.4	91.3	91.8	91.9	92.2	92.3	92.4	92.5	92.6	92.7
>= 500	27.3	52.2	60.1	68.9	77.0	79.7	86.3	90.4	90.9	92.0	92.7	92.8	93.2	93.3	93.4	93.5	93.6	93.7
>= 400	27.3	52.2	60.2	69.0	77.3	80.3	87.3	91.5	92.0	93.4	94.1	94.2	94.8	94.9	95.0	95.1	95.2	95.3
>= 300	27.3	52.2	60.2	69.0	77.3	80.3	87.4	91.7	92.2	93.6	94.8	94.9	95.8	95.9	96.0	96.1	96.2	96.3
>= 200	27.3	52.2	60.2	69.0	77.3	80.3	87.4	91.7	92.2	93.8	95.1	95.2	96.4	96.5	96.6	96.7	96.8	96.9
>= 100	27.3	52.2	60.2	69.0	77.3	80.3	87.4	91.7	92.2	93.8	95.1	95.2	96.5	96.6	96.7	96.8	96.9	97.0
>= 0	27.3	52.2	60.2	69.0	77.3	80.3	87.4	91.7	92.2	93.8	95.1	95.2	96.6	96.7	96.8	96.9	97.0	97.1

TOTAL NO. OF OBS : 966

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : 1300 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1 1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	22.1	35.7	39.9	43.8	50.1	52.8	55.4	56.3	56.3	57.1	57.2	57.2	57.2	57.2	57.4	57.4
>=20000	22.5	36.9	41.6	46.1	52.9	55.8	59.0	59.9	59.9	60.6	60.7	60.7	60.7	60.7	60.9	60.9
>=18000	22.7	37.2	41.9	46.4	53.3	56.2	59.4	60.3	60.3	61.0	61.2	61.2	61.2	61.2	61.4	61.4
>=16000	22.8	37.6	42.3	46.9	53.9	56.9	60.0	60.9	60.9	61.7	61.8	61.8	61.8	61.8	62.0	62.0
>=14000	23.6	38.6	43.6	48.3	55.4	58.4	61.8	62.8	62.8	63.7	63.8	63.8	63.8	63.8	64.0	64.0
>=12000	24.0	39.4	44.5	49.8	57.2	60.4	63.8	64.9	64.9	65.8	65.9	65.9	65.9	65.9	66.1	66.1
>=10000	24.8	40.7	46.0	51.6	59.4	62.8	66.2	67.5	67.5	68.5	68.6	68.6	68.6	68.6	68.8	68.8
>= 9000	24.9	41.0	46.3	51.9	59.7	63.4	66.8	68.2	68.2	69.1	69.2	69.2	69.2	69.2	69.4	69.4
>= 8000	25.5	42.6	48.2	53.9	61.3	65.5	69.1	70.5	70.5	71.5	71.6	71.6	71.6	71.6	71.8	71.8
>= 7000	25.5	42.9	48.6	54.7	62.6	66.4	69.9	71.3	71.3	72.4	72.5	72.5	72.5	72.5	72.7	72.7
>= 6000	25.7	43.2	48.9	55.0	62.9	66.7	70.3	71.6	71.6	72.7	72.8	72.8	72.8	72.8	73.0	73.0
>= 5000	26.0	44.2	49.8	56.0	64.1	67.9	71.5	72.9	72.9	73.9	74.0	74.0	74.0	74.0	74.2	74.2
>= 4500	26.1	44.8	50.9	57.1	65.3	69.1	72.8	74.1	74.1	75.2	75.3	75.3	75.3	75.3	75.5	75.5
>= 4000	26.6	45.8	51.8	58.0	66.3	70.1	73.7	75.1	75.1	76.1	76.2	76.2	76.2	76.2	76.4	76.4
>= 3500	27.1	46.7	52.8	59.0	67.3	71.1	74.8	76.1	76.1	77.2	77.3	77.3	77.3	77.3	77.5	77.5
>= 3000	27.9	48.0	54.0	60.2	68.8	72.7	76.6	78.1	78.1	79.2	79.3	79.3	79.3	79.3	79.5	79.5
>= 2500	29.2	50.3	56.5	62.9	71.7	75.7	79.8	81.4	81.4	82.4	82.6	82.6	82.6	82.6	82.8	82.8
>= 2000	30.2	52.0	58.4	65.4	74.6	78.6	82.9	84.8	84.8	85.9	86.1	86.1	86.1	86.1	86.3	86.3
>= 1800	30.3	52.4	58.8	65.9	75.0	79.2	83.6	85.4	85.4	86.5	86.7	86.7	86.7	86.7	86.9	86.9
>= 1500	30.7	53.8	60.6	67.9	77.3	81.7	86.2	88.1	88.1	89.2	89.4	89.4	89.4	89.4	89.6	89.6
>= 1200	30.9	55.3	62.2	69.9	79.6	84.1	88.6	90.5	90.5	91.6	91.9	91.9	91.9	91.9	92.1	92.1
>= 1000	31.1	55.9	63.1	71.2	81.5	85.9	90.6	92.5	92.6	93.9	94.2	94.2	94.2	94.2	94.5	94.5
>= 900	31.1	55.9	63.1	71.3	81.6	86.0	90.8	92.7	92.8	94.1	94.5	94.5	94.5	94.5	94.7	94.7
>= 800	31.2	56.0	63.5	71.9	82.2	86.6	91.6	93.6	93.7	95.2	95.6	95.6	95.6	95.6	95.8	95.8
>= 700	31.2	56.0	63.7	72.4	82.6	87.0	92.3	94.3	94.6	96.0	96.4	96.4	96.5	96.5	96.8	96.8
>= 600	31.2	56.0	63.7	72.4	82.7	87.1	92.6	94.9	95.1	96.5	97.0	97.0	97.1	97.1	97.3	97.3
>= 500	31.2	56.0	63.8	72.5	83.0	87.4	93.0	95.3	95.6	97.5	97.9	97.9	98.1	98.1	98.3	98.3
>= 400	31.2	56.0	63.8	72.5	83.0	87.4	93.0	95.6	95.9	98.0	98.5	98.5	98.8	98.8	99.1	99.1
>= 300	31.2	56.0	63.8	72.5	83.0	87.4	93.0	95.6	95.9	98.0	98.5	98.5	98.8	98.8	99.1	99.1
>= 200	31.2	56.0	63.8	72.5	83.0	87.4	93.1	95.7	96.0	98.1	99.0	99.0	99.5	99.5	99.7	99.7
>= 100	31.2	56.0	63.8	72.5	83.0	87.4	93.1	95.7	96.0	98.1	99.0	99.0	99.5	99.5	99.7	99.8
>= 0	31.2	56.0	63.8	72.5	83.0	87.4	93.1	95.7	96.0	98.1	99.0	99.0	99.5	99.5	99.9	100.0

TOTAL NO. OF OBS : 955

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	22.9	39.8	45.0	50.7	54.0	55.9	57.6	57.8	57.8	57.9	58.0	58.0	58.0	58.0	58.1	58.1
>=20000	23.8	42.3	48.0	55.0	58.4	60.4	62.1	62.4	62.4	62.6	62.7	62.7	62.7	62.7	62.8	62.8
>=18000	23.9	42.6	48.5	55.5	58.9	60.9	62.7	62.9	62.9	63.1	63.2	63.2	63.2	63.2	63.3	63.3
>=16000	23.9	42.8	48.7	55.8	59.4	61.4	63.2	63.4	63.4	63.6	63.7	63.7	63.7	63.7	63.8	63.8
>=14000	24.6	43.9	49.8	57.3	61.0	63.0	64.8	65.0	65.0	65.2	65.3	65.3	65.3	65.3	65.4	65.4
>=12000	24.8	44.5	51.0	58.6	62.7	64.7	66.8	67.2	67.2	67.4	67.6	67.6	67.6	67.6	67.7	67.7
>=10000	25.5	45.8	52.7	60.7	64.9	66.9	69.2	69.7	69.7	69.9	70.0	70.0	70.0	70.0	70.1	70.1
>=9000	25.7	46.1	53.0	61.0	65.3	67.3	69.7	70.1	70.1	70.3	70.4	70.4	70.4	70.4	70.5	70.5
>=8000	26.1	47.3	54.4	62.9	67.4	69.5	71.8	72.2	72.2	72.4	72.5	72.5	72.5	72.5	72.6	72.6
>=7000	26.2	48.3	55.5	64.1	68.6	70.7	73.4	73.9	73.9	74.1	74.2	74.2	74.2	74.2	74.3	74.3
>=6000	26.5	48.7	55.9	64.5	69.0	71.2	73.8	74.3	74.3	74.5	74.7	74.7	74.7	74.7	74.8	74.8
>=5000	26.7	49.1	56.3	65.0	69.6	71.7	74.5	75.1	75.1	75.3	75.4	75.4	75.4	75.4	75.5	75.5
>=4500	26.8	50.1	57.5	66.2	70.7	72.9	75.7	76.2	76.2	76.5	76.6	76.6	76.6	76.6	76.7	76.7
>=4000	27.7	51.6	59.3	68.1	72.6	74.8	77.6	78.2	78.2	78.4	78.5	78.5	78.5	78.5	78.6	78.6
>=3500	27.8	52.2	59.9	68.7	73.3	75.4	78.3	78.8	78.8	79.0	79.1	79.1	79.1	79.1	79.2	79.2
>=3000	28.4	53.7	61.7	70.8	75.7	77.8	80.7	81.2	81.2	81.4	81.5	81.5	81.5	81.5	81.7	81.7
>=2500	29.6	55.6	63.7	73.2	78.3	80.8	83.8	84.3	84.3	84.5	84.6	84.6	84.6	84.6	84.7	84.7
>=2000	30.3	56.9	65.4	75.3	80.5	83.0	86.1	86.7	86.7	87.0	87.1	87.1	87.1	87.1	87.2	87.2
>=1800	30.4	57.6	66.2	76.2	81.8	84.3	87.5	88.3	88.3	88.5	88.7	88.7	88.7	88.7	88.8	88.8
>=1500	31.1	58.9	67.8	78.2	83.8	86.4	89.6	90.7	90.7	91.0	91.2	91.2	91.2	91.2	91.3	91.3
>=1200	31.2	59.7	68.9	79.3	85.0	87.8	91.2	92.3	92.3	92.6	92.8	92.8	92.8	92.8	92.9	92.9
>=1000	31.3	60.2	69.9	80.7	86.7	89.7	93.5	95.0	95.0	95.5	95.9	95.9	95.9	95.9	96.0	96.0
>=900	31.3	60.3	70.0	80.8	86.9	89.8	93.6	95.1	95.1	95.8	96.1	96.1	96.1	96.1	96.2	96.2
>=800	31.3	60.4	70.1	80.9	87.1	90.2	94.2	95.7	95.7	96.3	96.7	96.7	96.7	96.7	96.8	96.8
>=700	31.3	60.4	70.2	81.1	87.4	90.6	94.5	96.0	96.0	96.6	97.0	97.0	97.1	97.1	97.2	97.2
>=600	31.3	60.6	70.4	81.3	87.6	90.9	94.9	96.6	96.6	97.3	97.8	97.8	97.9	97.9	98.0	98.0
>=500	31.3	60.6	70.4	81.4	87.9	91.2	95.4	97.2	97.2	98.2	98.6	98.6	98.7	98.7	98.8	98.8
>=400	31.3	60.7	70.5	81.5	88.0	91.3	95.5	97.3	97.3	98.7	99.2	99.2	99.3	99.3	99.4	99.4
>=300	31.3	60.7	70.5	81.5	88.0	91.3	95.5	97.3	97.3	98.8	99.3	99.3	99.4	99.4	99.5	99.5
>=200	31.3	60.7	70.5	81.5	88.0	91.3	95.5	97.3	97.3	98.8	99.5	99.5	99.6	99.6	99.8	99.8
>=100	31.3	60.7	70.5	81.5	88.0	91.3	95.5	97.3	97.3	98.8	99.5	99.5	99.6	99.6	99.8	99.8
>=0	31.3	60.7	70.5	81.5	88.0	91.3	95.5	97.3	97.3	98.8	99.5	99.5	99.6	99.6	99.9	100.0

TOTAL NO. OF OBS : 943

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : DEC  
HOUR : 1900 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

## VISIBILITY (STATUTE MILES)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=2	>=1	1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	30.5	54.8	58.5	60.7	62.3	62.8	64.0	64.2	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3
>=20000	31.1	56.4	60.4	63.2	64.8	65.3	66.6	66.8	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9
>=18000	31.3	56.6	60.6	63.4	65.0	65.5	66.8	67.0	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1
>=16000	31.3	56.8	60.9	63.7	65.3	65.8	67.1	67.3	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4
>=14000	32.0	58.4	62.6	65.3	67.0	67.5	68.7	68.9	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0
>=12000	32.7	59.6	63.9	66.8	68.4	69.0	70.3	70.5	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6
>=10000	33.3	61.1	65.4	68.7	70.4	71.0	72.3	72.5	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6
>= 9000	33.4	61.2	65.5	68.8	70.5	71.1	72.4	72.6	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7
>= 8000	34.4	63.2	67.6	71.1	72.7	73.3	74.7	74.9	75.0	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1
>= 7000	34.7	64.0	68.6	72.1	73.7	74.4	75.7	75.9	76.0	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1
>= 6000	34.8	64.4	69.0	72.5	74.2	74.8	76.1	76.3	76.4	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5
>= 5000	35.4	65.5	70.2	73.7	75.5	76.1	77.5	77.7	77.8	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9
>= 4500	35.6	66.1	70.8	74.5	76.2	76.8	78.3	78.5	78.6	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7
>= 4000	36.4	67.1	72.1	75.8	77.5	78.2	79.6	79.8	79.9	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
>= 3500	36.9	67.9	73.1	76.8	78.4	79.2	80.6	80.8	80.9	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0
>= 3000	37.5	69.4	74.9	79.0	80.8	81.4	82.9	83.1	83.2	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3
>= 2500	38.1	71.8	77.5	81.6	83.6	84.2	85.6	85.8	85.9	86.2	86.2	86.2	86.2	86.2	86.2	86.2	86.2
>= 2000	38.6	74.6	80.3	84.6	86.6	87.2	88.6	88.9	89.0	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2
>= 1800	38.6	74.8	80.6	84.9	86.9	87.5	88.9	89.2	89.3	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5
>= 1500	39.2	76.2	82.5	86.8	88.9	89.5	91.0	91.3	91.4	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6
>= 1200	39.6	77.4	84.3	89.0	91.3	91.9	93.3	93.6	93.7	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9
>= 1000	39.7	78.4	85.6	90.5	92.7	93.4	94.9	95.2	95.3	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5
>= 900	39.7	78.6	85.9	91.0	93.3	94.1	95.5	95.8	95.9	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1
>= 800	39.9	79.2	86.8	91.8	94.3	95.0	96.4	96.7	96.8	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0
>= 700	39.9	79.3	86.9	91.9	94.4	95.1	96.5	96.9	97.0	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2
>= 600	40.0	79.4	87.1	92.2	94.9	95.6	97.0	97.5	97.6	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8
>= 500	40.0	79.4	87.1	92.2	95.1	95.8	97.4	98.2	98.3	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
>= 400	40.0	79.5	87.3	92.4	95.4	96.1	97.7	98.6	98.7	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
>= 300	40.0	79.5	87.3	92.4	95.5	96.2	97.8	98.7	98.8	99.1	99.1	99.1	99.1	99.2	99.2	99.3	99.3
>= 200	40.0	79.5	87.3	92.4	95.5	96.2	97.8	98.7	98.8	99.2	99.2	99.3	99.3	99.4	99.4	99.5	99.5
>= 100	40.0	79.5	87.3	92.4	95.5	96.2	97.8	98.7	98.8	99.2	99.2	99.3	99.3	99.5	99.5	99.6	99.7
>= 0	40.0	79.5	87.3	92.4	95.5	96.2	97.8	98.7	98.8	99.2	99.2	99.3	99.3	99.5	99.5	99.6	100.0

TOTAL NO. OF OBS : 975

# 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : 2200 LST

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CELLING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1 1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	29.0	49.3	53.3	56.5	59.1	59.7	61.0	61.1	61.1	61.5	61.6	61.6	61.9	61.9	62.0	62.2
>=20000	29.9	51.3	55.6	58.8	61.4	62.1	63.5	63.6	63.6	64.0	64.1	64.1	64.3	64.3	64.4	64.6
>=18000	30.0	51.5	55.8	59.0	61.6	62.3	63.7	63.8	63.8	64.2	64.3	64.3	64.5	64.5	64.6	64.8
>=16000	30.1	51.8	56.0	59.2	62.0	62.6	64.0	64.1	64.1	64.5	64.6	64.6	64.8	64.8	64.9	65.2
>=14000	30.6	52.7	56.9	60.1	63.0	63.6	65.1	65.3	65.3	65.7	65.8	65.8	66.0	66.0	66.1	66.3
>=12000	31.1	53.6	58.0	61.4	64.3	64.9	66.4	66.6	66.6	67.0	67.1	67.1	67.3	67.3	67.4	67.6
>=10000	31.6	54.8	59.3	63.0	66.0	66.6	68.0	68.2	68.2	68.7	68.8	68.8	69.0	69.0	69.1	69.3
>= 9000	31.9	55.3	59.7	63.5	66.5	67.1	68.7	68.9	68.9	69.3	69.4	69.4	69.6	69.6	69.7	69.9
>= 8000	33.0	57.1	61.5	65.6	68.7	69.3	70.8	71.0	71.0	71.4	71.5	71.5	71.8	71.8	71.9	72.1
>= 7000	33.2	57.6	62.1	66.2	69.3	69.9	71.4	71.6	71.6	72.1	72.2	72.2	72.4	72.4	72.5	72.7
>= 6000	33.2	57.9	62.4	66.6	69.7	70.3	71.9	72.1	72.1	72.5	72.6	72.6	72.8	72.8	72.9	73.1
>= 5000	33.9	59.2	63.7	68.0	71.1	71.8	73.3	73.5	73.6	74.0	74.1	74.1	74.3	74.3	74.4	74.6
>= 4500	34.6	60.0	64.5	68.9	72.1	72.7	74.2	74.4	74.5	74.9	75.1	75.1	75.3	75.3	75.4	75.6
>= 4000	35.3	61.0	65.8	70.2	73.5	74.1	75.7	75.9	76.0	76.4	76.5	76.5	76.7	76.7	76.8	77.0
>= 3500	36.4	62.6	67.4	71.9	75.2	75.8	77.3	77.5	77.6	78.0	78.1	78.1	78.4	78.4	78.5	78.7
>= 3000	37.0	64.2	69.5	74.1	77.4	78.0	79.7	79.9	80.0	80.4	80.5	80.5	80.7	80.7	80.8	81.0
>= 2500	37.8	65.9	71.1	75.8	79.1	79.7	81.3	81.5	81.6	82.1	82.2	82.2	82.4	82.4	82.5	82.7
>= 2000	38.7	68.5	74.3	79.2	82.5	83.1	84.7	84.9	85.1	85.5	85.6	85.6	85.8	85.8	85.9	86.1
>= 1800	38.7	68.8	74.6	79.5	82.8	83.4	85.2	85.4	85.5	85.9	86.0	86.0	86.2	86.2	86.3	86.5
>= 1500	39.1	71.1	77.1	82.5	86.1	86.7	88.5	88.7	88.8	89.2	89.3	89.3	89.5	89.5	89.6	89.8
>= 1200	39.5	72.5	78.8	84.3	88.2	89.0	90.9	91.1	91.2	91.6	91.8	91.8	92.0	92.0	92.1	92.3
>= 1000	40.0	73.4	80.1	86.3	90.3	91.0	93.0	93.2	93.3	93.7	93.8	93.8	94.0	94.0	94.1	94.3
>= 900	40.1	73.5	80.3	86.7	90.8	91.6	93.6	93.8	93.9	94.4	94.5	94.5	94.7	94.7	94.8	95.1
>= 800	40.2	73.9	80.7	87.2	91.3	92.2	94.1	94.4	94.5	95.1	95.2	95.2	95.4	95.4	95.5	95.7
>= 700	40.3	74.3	81.1	87.6	91.8	92.6	94.6	95.1	95.2	95.7	95.8	95.8	96.0	96.0	96.1	96.3
>= 600	40.3	74.6	81.5	88.0	92.2	93.0	95.3	95.7	95.8	96.3	96.5	96.5	96.7	96.7	96.8	97.0
>= 500	40.3	74.9	81.9	88.4	92.6	93.5	95.8	96.3	96.4	96.9	97.3	97.3	97.5	97.5	97.6	97.8
>= 400	40.3	75.1	82.0	88.5	92.7	93.6	96.0	96.6	96.7	97.2	97.6	97.6	97.8	97.8	97.9	98.1
>= 300	40.3	75.1	82.0	88.5	92.8	93.7	96.1	96.8	96.9	97.5	97.9	97.9	98.1	98.1	98.2	98.5
>= 200	40.3	75.1	82.0	88.5	92.8	93.7	96.1	96.8	96.9	97.6	98.1	98.2	98.6	98.6	98.7	98.9
>= 100	40.3	75.1	82.0	88.5	92.8	93.7	96.1	96.8	96.9	97.6	98.1	98.2	98.8	98.8	98.9	99.1
>= 0	40.3	75.1	82.0	88.5	92.8	93.7	96.1	96.8	96.9	97.6	98.1	98.2	98.8	98.8	99.0	100.0

TOTAL NO. OF OBS : 970

# 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : ALL

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)																	
	>=10	>=6	>=5	>=4	>=3	>=2	1/2	>=1	1/2	>=1	1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	23.7	41.1	45.1	49.3	52.6	54.0	55.7	56.2	56.2	56.6	56.7	56.7	56.7	56.7	56.7	56.8	56.9	57.0
>=20000	24.3	42.7	47.0	51.5	55.0	56.4	58.3	58.8	58.9	59.2	59.3	59.3	59.3	59.3	59.4	59.4	59.5	59.6
>=18000	24.5	43.0	47.3	51.8	55.3	56.7	58.7	59.2	59.2	59.6	59.7	59.7	59.7	59.7	59.8	59.8	59.9	60.0
>=16000	24.5	43.2	47.5	52.0	55.6	57.0	58.9	59.5	59.5	59.9	60.0	60.0	60.0	60.0	60.1	60.1	60.2	60.3
>=14000	25.0	44.1	48.5	53.3	56.9	58.4	60.4	61.0	61.0	61.4	61.5	61.5	61.5	61.5	61.6	61.6	61.7	61.8
>=12000	25.7	45.2	49.8	54.8	58.6	60.1	62.2	62.8	62.9	63.3	63.4	63.4	63.4	63.4	63.5	63.5	63.6	63.7
>=10000	26.4	46.5	51.3	56.5	60.5	62.0	64.2	64.9	65.0	65.4	65.5	65.5	65.5	65.5	65.6	65.6	65.7	65.8
>= 9000	26.6	46.7	51.6	56.8	60.8	62.4	64.6	65.3	65.4	65.8	65.9	65.9	65.9	65.9	66.0	66.0	66.1	66.2
>= 8000	27.3	48.2	53.1	58.5	62.6	64.2	66.4	67.2	67.3	67.8	67.9	67.9	67.9	67.9	68.0	68.0	68.1	68.2
>= 7000	27.5	48.9	53.9	59.4	63.5	65.1	67.4	68.2	68.3	68.7	68.8	68.8	68.8	68.8	68.9	68.9	69.0	69.1
>= 6000	27.7	49.2	54.2	59.7	63.9	65.5	67.7	68.5	68.6	69.1	69.2	69.2	69.2	69.2	69.3	69.3	69.4	69.5
>= 5000	28.2	50.3	55.4	61.0	65.2	66.8	69.1	69.9	70.0	70.5	70.6	70.6	70.6	70.6	70.7	70.7	70.8	70.9
>= 4500	28.7	51.2	56.4	62.0	66.3	67.9	70.2	71.0	71.1	71.6	71.7	71.7	71.7	71.7	71.8	71.8	71.9	72.0
>= 4000	29.2	52.1	57.4	63.0	67.3	69.0	71.3	72.2	72.3	72.7	72.8	72.8	72.8	72.9	72.9	72.9	73.0	73.2
>= 3500	29.7	53.1	58.4	64.1	68.4	70.1	72.4	73.3	73.4	73.9	74.0	74.0	74.0	74.0	74.1	74.1	74.2	74.3
>= 3000	30.6	54.9	60.5	66.3	70.8	72.4	74.9	75.8	75.9	76.3	76.5	76.5	76.5	76.5	76.6	76.6	76.7	76.8
>= 2500	31.5	56.9	62.6	68.6	73.2	74.9	77.5	78.4	78.5	79.0	79.1	79.1	79.1	79.2	79.2	79.2	79.3	79.4
>= 2000	32.5	59.5	65.5	71.7	76.5	78.3	80.9	81.9	82.0	82.4	82.6	82.6	82.6	82.7	82.7	82.7	82.8	82.9
>= 1800	32.8	60.1	66.2	72.5	77.3	79.1	81.8	82.8	82.9	83.4	83.5	83.5	83.5	83.6	83.6	83.6	83.7	83.8
>= 1500	33.2	61.8	68.2	74.7	79.9	81.8	84.5	85.6	85.7	86.2	86.4	86.4	86.4	86.5	86.5	86.5	86.6	86.7
>= 1200	33.5	62.9	69.5	76.4	81.7	83.6	86.5	87.5	87.7	88.2	88.3	88.4	88.4	88.4	88.5	88.5	88.6	88.7
>= 1000	33.8	63.9	70.9	78.2	83.7	85.7	88.7	89.9	90.0	90.6	90.8	90.8	90.8	90.8	90.9	90.9	91.0	91.1
>= 900	33.8	64.1	71.2	78.7	84.3	86.3	89.4	90.6	90.8	91.4	91.6	91.6	91.6	91.7	91.7	91.7	91.8	91.9
>= 800	33.9	64.5	71.7	79.3	85.1	87.2	90.4	91.6	91.8	92.4	92.6	92.6	92.6	92.7	92.7	92.8	92.9	93.0
>= 700	33.9	64.7	72.0	79.7	85.7	87.8	91.2	92.6	92.7	93.4	93.6	93.6	93.6	93.7	93.8	93.8	93.9	94.0
>= 600	33.9	64.9	72.3	80.1	86.3	88.5	92.0	93.5	93.7	94.4	94.7	94.7	94.7	94.8	94.8	94.8	94.9	95.0
>= 500	33.9	65.0	72.4	80.4	86.7	88.9	92.6	94.2	94.4	95.3	95.6	95.6	95.6	95.7	95.8	95.8	95.9	96.0
>= 400	33.9	65.0	72.6	80.5	86.9	89.2	93.0	94.7	94.9	95.9	96.3	96.3	96.3	96.3	96.5	96.5	96.7	96.8
>= 300	33.9	65.1	72.6	80.5	87.0	89.3	93.2	95.0	95.2	96.3	96.8	96.8	96.8	96.8	97.1	97.1	97.2	97.4
>= 200	33.9	65.1	72.6	80.5	87.0	89.3	93.2	95.1	95.2	96.5	97.1	97.1	97.1	97.1	97.5	97.6	97.8	98.0
>= 100	33.9	65.1	72.6	80.5	87.0	89.3	93.3	95.1	95.3	96.5	97.2	97.2	97.2	97.2	97.7	97.8	98.1	98.7
>= 0	33.9	65.1	72.6	80.5	87.0	89.3	93.3	95.1	95.3	96.5	97.2	97.2	97.2	97.2	97.7	97.8	98.2	100.0

TOTAL NO. OF OBS : 7736

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : ANN  
 HOUR : ALL

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1 1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	37.0	56.0	57.9	59.3	60.3	60.6	61.0	61.2	61.2	61.3	61.3	61.3	61.3	61.3	61.3	61.4
>=20000	37.9	58.0	60.0	61.5	62.6	62.9	63.4	63.5	63.5	63.6	63.6	63.6	63.7	63.7	63.7	63.7
>=18000	38.0	58.4	60.3	61.9	62.9	63.3	63.7	63.8	63.9	64.0	64.0	64.0	64.0	64.0	64.0	64.1
>=16000	38.2	58.6	60.6	62.1	63.2	63.6	64.0	64.1	64.2	64.2	64.3	64.3	64.3	64.3	64.3	64.4
>=14000	38.8	59.6	61.7	63.3	64.4	64.8	65.2	65.4	65.4	65.5	65.5	65.5	65.5	65.5	65.6	65.6
>=12000	39.6	60.9	63.0	64.7	65.8	66.2	66.7	66.8	66.9	66.9	67.0	67.0	67.0	67.0	67.0	67.1
>=10000	40.3	62.1	64.3	66.1	67.2	67.6	68.1	68.3	68.3	68.4	68.5	68.5	68.5	68.5	68.5	68.6
>= 9000	40.4	62.4	64.6	66.3	67.5	67.9	68.4	68.6	68.7	68.7	68.7	68.7	68.8	68.8	68.8	68.8
>= 8000	41.1	63.5	65.8	67.5	68.8	69.2	69.7	69.9	69.9	70.0	70.0	70.0	70.0	70.0	70.1	70.1
>= 7000	41.3	64.0	66.3	68.1	69.3	69.7	70.3	70.4	70.5	70.6	70.6	70.6	70.6	70.6	70.6	70.7
>= 6000	41.5	64.3	66.6	68.4	69.6	70.1	70.6	70.8	70.8	70.9	70.9	70.9	70.9	71.0	71.0	71.0
>= 5000	41.9	65.0	67.4	69.2	70.5	70.9	71.4	71.6	71.6	71.7	71.7	71.8	71.8	71.8	71.8	71.8
>= 4500	42.3	65.7	68.0	69.9	71.1	71.6	72.1	72.3	72.3	72.4	72.4	72.5	72.5	72.5	72.5	72.5
>= 4000	42.6	66.3	68.7	70.6	71.9	72.3	72.8	73.0	73.1	73.2	73.2	73.2	73.2	73.2	73.2	73.3
>= 3500	43.1	67.1	69.5	71.3	72.7	73.1	73.6	73.8	73.9	74.0	74.0	74.0	74.0	74.0	74.1	74.1
>= 3000	43.8	68.4	70.8	72.8	74.1	74.5	75.1	75.3	75.4	75.4	75.5	75.5	75.5	75.5	75.5	75.6
>= 2500	44.8	69.9	72.5	74.5	75.9	76.3	76.9	77.1	77.2	77.3	77.3	77.3	77.3	77.3	77.3	77.4
>= 2000	46.0	72.2	74.8	76.9	78.4	78.9	79.5	79.7	79.7	79.8	79.9	79.9	79.9	79.9	79.9	80.0
>= 1800	46.3	72.9	75.6	77.7	79.2	79.7	80.3	80.5	80.6	80.7	80.7	80.7	80.7	80.7	80.8	80.8
>= 1500	47.3	75.3	78.2	80.5	82.0	82.5	83.2	83.4	83.4	83.6	83.6	83.6	83.7	83.7	83.7	83.7
>= 1200	48.3	77.7	80.7	83.1	84.7	85.3	86.0	86.2	86.3	86.4	86.4	86.4	86.5	86.5	86.5	86.5
>= 1000	49.2	80.2	83.3	85.9	87.6	88.2	88.9	89.2	89.3	89.4	89.4	89.5	89.5	89.5	89.5	89.6
>= 900	49.5	81.3	84.6	87.2	88.9	89.5	90.3	90.6	90.7	90.8	90.9	90.9	90.9	90.9	90.9	91.0
>= 800	49.8	82.6	86.0	88.7	90.5	91.1	92.0	92.3	92.3	92.5	92.5	92.5	92.6	92.6	92.6	92.7
>= 700	50.1	83.9	87.4	90.2	92.1	92.7	93.6	93.9	93.9	94.1	94.2	94.2	94.2	94.2	94.2	94.3
>= 600	50.3	85.2	88.9	91.8	93.8	94.4	95.3	95.7	95.8	96.0	96.0	96.0	96.1	96.1	96.1	96.1
>= 500	50.4	86.1	89.9	93.0	95.0	95.7	96.6	97.0	97.1	97.3	97.4	97.4	97.4	97.4	97.5	97.5
>= 400	50.5	86.7	90.7	93.8	95.9	96.6	97.6	98.1	98.1	98.4	98.5	98.5	98.6	98.6	98.6	98.7
>= 300	50.5	86.8	90.9	94.1	96.3	97.3	98.0	98.5	98.6	98.9	99.0	99.0	99.1	99.1	99.1	99.2
>= 200	50.5	86.9	91.0	94.2	96.3	97.0	98.1	98.6	98.7	99.0	99.2	99.2	99.3	99.3	99.4	99.4
>= 100	50.5	86.9	91.0	94.2	96.3	97.0	98.1	98.6	98.7	99.0	99.2	99.2	99.3	99.4	99.5	99.7
>= 0	50.5	86.9	91.0	94.2	96.3	97.0	98.1	98.6	98.7	99.0	99.2	99.2	99.3	99.4	99.5	100.0

TOTAL NO. OF OBS : 91807



### 3 - PSYCHROMETRIC SUMMARY

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37.47N LONG. : 122.19W ELEV. : 15 FT  
MONTH : JAN PAGE : 1

DRY-BULB  
TEMP.  
(DEG F)

% FREQ. WET BULB TEMPERATURE DEPRESSION (DEG F)

	TOTAL	TOTAL OBS
D.B./	DRY	WEI DEW
W.B.	BULB	BULB PT.

[illegible]

# 3 - PSYCHROMETRIC SUMMARY

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JAN  
PAGE 2

DRY-BULB TEMP. (DEG F) 0 1-2 3-4 5-6 7-8 9-10 11-12 13-14 15-16 17-18 19-20 21-22 23-24 25-26 27-28 29-30 > 30 D.B. / W.B. BULB BULB PT. TOTAL OBS

TOTAL 8.0 38.1 27.7 14.2 5.9 3.5 1.7 .7 .3 .1 .0\* .0\* .0 .0 .0 .0 .0 7927 7935 7927 7930

ELEMENT (X) SUM X SUM X\*\*2 MEAN STD DEV # OBS

28 - REL HUM 618327. 50286783. 78.0 16.082 7926  
15 - DRY BULB 393001. 19692549. 49.5 5.363 7935  
16 - WET BULB 365566. 17067202. 46.1 5.130 7927  
17 - DEW PT. 335446. 14632100. 42.3 7.470 7930

40 - MEAN NO. OF HOURS WITH TEMP.

<=0 F <=32 F >=67 F >=73 F >=80 F >=93 F TOTAL  
.0 .0 .0 1.3 .0 .0 .0  
.0 4.7 .0 .0 .0 .0  
.4 69.2 .0 .0 .0 .0

## 3 - PSYCHROMETRIC SUMMARY

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : FEB  
PAGE 1

DRY-BULB TEMP. (DEG F)		0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	> 30	TOTAL W.B.	DRY BULB	WET BULB	DEW PT.	TOTAL OBS
>= 77	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1	1	0	0	0
>= 75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3	3	0	0	0
>= 73	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7	7	0	0	0
>= 71	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11	11	0	0	0
>= 69	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29	29	0	0	0
>= 67	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39	39	0	0	0
>= 65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	83	83	4	0	0
>= 63	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	140	140	13	2	0
>= 61	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	248	248	30	13	0
>= 59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	459	459	90	40	0
>= 57	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	763	763	277	150	0
>= 55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	975	975	537	255	0
>= 53	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1076	1076	737	399	0
>= 51	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1125	1125	1062	566	0
>= 49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	912	912	1144	826	0
>= 47	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	660	660	1160	892	0
>= 45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	382	382	978	923	0
>= 43	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	187	187	548	846	0
>= 41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	89	89	345	699	0
>= 39	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31	31	180	481	0
>= 37	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7	7	76	351	0
>= 35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1	1	25	241	0
>= 33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	14	155	0
>= 31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	3	104	0
>= 29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	5	72	0
>= 27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	52	0
>= 25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	39	0
>= 23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	28	0
>= 21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	34	0
>= 19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	21	0
>= 17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	11	0
>= 15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	9	0
>= 13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	8	0
>= 11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	3	0
>= 9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	5	0
>= 7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	3	0
TOTAL	4.5	30.7	29.6	17.3	8.7	4.6	2.2	1.3	.7	.3	.1	.0	.0	.0	.0	.0	.0	.0	7228	7228	7228	7228	

ELEMENT(X)		SUM X	SUM X**2	MEAN STD DEV	# OBS	40 - MEAN NO. OF HOURS WITH TEMP.						TOTAL
						<=0 F	<=32 F	>=67 F	>=73 F	>=80 F	>=93 F	
28 - REL HUM	544986.	43003557.	75.4	16.265	7228							
15 - DRY BULB	383980.	20600478.	53.1	5.286	7228	.0	.0	8.4	1.0	.0	.0	672
16 - WET BULB	354110.	17517566.	49.0	4.839	7228	.4	1.1	.0	.0	.0	.0	672
17 - DEW PT.	323901.	14888581.	44.8	7.193	7228	.1	36.2	.0	.0	.0	.0	672

## 3 - PSYCHROMETRIC SUMMARY

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986LAT. : 37.47N LONG. : 122.19W ELEV. : 15 FT  
MONTH : MAR  
PAGE 1

DRY-BULB TEMP. (DEG F) 2 FREQ. WET BULB TEMPERATURE DEPRESSION (DEG F)

TOTAL DRY WET DEW  
W.B. BULB BULB PT.

>= 81	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.
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40 - MEAN NO. OF HOURS WITH TEMP.

&lt;=0 F &lt;=32 F &gt;=67 F &gt;=73 F &gt;=80 F &gt;=93 F TOTAL

ELEMENT(X)	SUM X	SUM X**2	MEAN STL DEV	# OPS
28 - REL HUM	569045.	42832867.	71.7	15.975
15 - DRY BULB	432660.	23842100.	54.5	5.026
16 - WET BULB	393411.	19664131.	49.6	4.476
17 - DEW PT.	355313.	16242390.	44.8	6.471

TOTAL

TOTAL

TOTAL

TOTAL

## 3 - PSYCHROMETRIC SUMMARY

021239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986LAT. : 37.47N LONG. : 122.19W ELEV. : 15 FT  
MONTH : APR  
PAGE 1

DRY-FULB TEMP. (DEG F)	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	> 30	TOTAL			TOTAL OBS
																	W.B.	D.B./	DRY	WET
																	BULB	BULB	PT.	DEW
>= 87	.0	.0	.0	.0	.0	.0	.0	.0	.0*	.0	.0	.0	.0	.0*	.0	.0	.0	.0	.0	.0
>= 85	.0	.0	.0	.0	.0	.0	.0	.0	.0*	.0	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 83	.0	.0	.0	.0	.0	.0	.0	.0*	.0	.0	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 81	.0	.0	.0	.0	.0	.0	.0	.0	.0*	.0	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 79	.0	.0	.0	.0	.0	.0*	.0	.0	.0*	.0	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 77	.0	.0	.0	.0	.0	.0*	.0	.0	.0*	.0	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 75	.0	.0	.0	.0	.0	.0*	.0	.0	.0*	.0	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 73	.0	.0	.0	.0	.0	.0*	.0	.0	.0*	.0	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 71	.0	.0	.0	.0	.0	.0*	.0	.0	.0*	.0	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 69	.0	.0	.0	.0	.0	.0*	.0	.0	.0*	.0	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 67	.0	.0	.0	.0	.0	.0*	.0	.0	.0*	.0	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 65	.0	.0	.0	.0	.0	.0*	.0	.0	.0*	.0	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 63	.0	.0	.0	.0	.0	.0*	.0	.0	.0*	.0	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 61	.0*	.0	.0	.0	.0	.0*	.0	.0	.0*	.0	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 59	.0*	.0	.0	.0	.0	.0*	.0	.0	.0*	.0	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 57	.2	1.1	2.7	3.3	2.1	1.0	.2	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 55	.2	2.8	4.8	3.5	1.8	.6	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 53	.2	3.9	5.7	3.3	1.3	.2	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 51	.2	4.0	6.5	3.1	1.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 49	.1	2.4	4.2	2.1	.4	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 47	.0*	1.5	2.0	.9	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 45	.0*	.8	.7	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 43	.0	.2	.2	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 41	.0	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 39	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 37	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 35	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 33	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 31	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 29	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 23	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 17	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 15	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL	1.1	17.5	29.2	22.1	13.8	6.2	3.8	2.0	1.0	.8	.2	.2	.1	.0*	.0	.0	7667	7680	7667	7670

ELEMENT(X)	SUM X	SUM X**2	MEAN STD DEV	# OBS	40 - MEAN NO. OF HOURS WITH TEMP.				TOTAL
					<=0 F	<=32 F	>=67 F	>=73 F	>=93 F
28 - REL HUM	536091.	39247941.	69.9	15.167	7667				
15 - DRY BULB	431009.	24495891.	56.1	6.375	7680				
16 - WET BULB	388524.	19848552.	50.7	4.571	7667				
17 - DEW PT.	350328.	16266032.	45.7	5.37	7670				

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : MAY  
PAGE : 1

DRY-BULB  
TEMP. (DEG F)

% FREQ. WET BULB TEMPERATURE DEPRESSION (DEG F)

TOTAL	TOTAL OBS
D.B./	DRY WET DEN
W.B.	BULB BULB PT.

[illegible]

ELEMENT (X.1)

MEAN STD DEV # OBS

4 Q. - MEAN NO. OF HOURS WITH TEMP.

28 - REL HUM	559718.	41096694.	70.5	14.269	7935
15 - DRY BULB	462776.	27318327.	58.3	6.436	7935
16 - WET BULB	418688.	22226100.	52.8	4.112	7935
17 - DEW PT.	381760.	18527832.	48.1	4.505	7935

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JUN  
PAGE : 1

[illegible]

40 - MEAN NO. OF HOURS WITH TEMP.

ELEMENT(X)	SUM_X	SUM_X**2	MEAN	STD DEV	# OBS
28 - REL HUM	555925.	41837417.	72.4	14.349	7677
15 - DRY BULB	470398.	29183862.	61.2	6.961	7680
16 - WET BULB	427757.	23950417.	55.7	3.889	7677
17 - DEW PT.	396224.	20541228.	51.6	3.597	7680

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT.: 37 47N LONG.: 122 19W ELEV.: 15 FT  
MONTH: JUL PAGE: 1

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

DRY-BULB					
TEMP.	0	1-2	3-4	5-6	7-8
FREQ. WET BULB TEMPERATURE DEPRESSION (DEG F)	9-10	11-12	13-14	15-16	17-18
(DEG F)	21-22	23	24	25	26

[illegible]

ELEMENT(X)	SUM X	SUM X**2	MEAN	STD DEV	# OBS	<=0 F	<=32 F	-	MEAN NO. OF HOURS WITH TEMP.	TOTAL
									>67 F >73 F >80 F >93 F	
28 - REL HUM	595351.	46178803.	75.1	13.648	7929	.	.0	160.7	43.5	11.2 .6
15 - DRY BULB	489539.	30523113.	61.7	6.405	7936	.0	.0	5.7	.3	.0
16 - WET BULB	449512.	25584068.	56.7	3.556	7929	.7	.7	5.7	.3	.0
17 - DEM PL	421614.	22474958.	53.1	2.977	7934	.0	.0	.3	.0	.0



023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37.47N LONG. : 122.19W ELEV. : 15 FT  
MONTH : AUG PAGE : 1

DRY-BULB		% FREQ.								WET BULB TEMPERATURE DEPRESSION (DEG F)						TOTAL	TOTAL OBS					
TEMP.	(DEG F)	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	> 30	D.B./ W.B.	DRY BULB	WET BULB	DEW PT.

[illegible]

ELEMENT(X)	SUM X	SUM X**2	MEAN	STD DEV	# OBS
28 - REL HUM	605649.	47649289.	76.3	13.336	7933
15 - ORY BULB	494285.	31092311.	62.3	6.213	7936
16 - WET BULB	456142.	26320412.	57.5	3.416	7933
17 - DEV PT.	430216.	23383176.	54.2	2.770	7936

40 - MEAN NO. OF HOURS WITH TEMP.

## 3 - PSYCHROMETRIC SUMMARY

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : SEP  
PAGE 1

TEMP. (DEG F)	% FREQ. WET BULB TEMPERATURE DEPRESSION (DEG F)										TOTAL		TOTAL OBS								
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	> 30	W.B. / DRY	BULB	BULB	PT.
>=105	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	1	1	0	0
>=103	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	0	0	0	0
>=101	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	1	1	0	0
>= 99	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	0
>= 97	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	3	3	0	0
>= 95	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	5	5	0	0
>= 93	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	3	3	0	0
>= 91	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	11	11	0	0
>= 89	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	21	21	0	0
>= 87	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	29	29	0	0
>= 85	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	40	40	0	0
>= 83	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	60	60	0	0
>= 81	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	70	70	0	0
>= 79	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	84	84	0	0
>= 77	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	104	104	0	0
>= 75	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	193	193	0	0
>= 73	.0	.0	.0*	.1	.3	1.0	1.0	.6	.1	.0*	.0	.0	.0	.0	.0	.0	.0*	238	238	1	0
>= 71	.0	.0	.0*	.3	.9	2.0	.8	.2	.1	.0*	.0	.0	.0	.0	.0	.0	.0*	347	347	5	0
>= 69	.0	.0	.2	.6	2.3	2.2	.7	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0*	481	481	29	1
>= 67	.0	.1	.6	1.9	2.9	1.4	.3	.0*	.0*	.0*	.0	.0	.0	.0	.0	.0	.0*	555	555	88	5
>= 65	.1	.4	1.6	3.7	2.6	.5	.1	.0*	.0*	.0*	.0	.0	.0	.0	.0	.0	.0*	687	687	240	13
>= 63	.1	1.1	3.0	4.4	1.7	.3	.1	.0	.0*	.0	.0	.0	.0	.0	.0	.0	.0*	815	815	551	77
>= 61	.1	2.7	4.7	3.1	.7	.1	.0*	.0	.0	.0*	.0	.0	.0	.0	.0	.0	.0*	872	872	1008	197
>= 59	.1	5.1	7.1	2.4	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	1152	1152	1326	457
>= 57	.2	7.2	5.8	.8	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	1079	1079	1589	1120
>= 55	.3	5.3	2.5	.2	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	640	640	1591	1645
>= 53	.1	1.5	.4	.1	.0	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	165	165	916	1714
>= 51	.0	.2	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	17	17	267	1334
>= 49	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	0	0	49	646
>= 47	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	0	0	11	209
>= 45	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	0	0	2	99
>= 43	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	0	0	0	53
>= 41	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	0	0	0	32
>= 39	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	0	0	0	25
>= 37	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	0	0	0	14
>= 35	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	0	0	0	11
>= 33	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	0	0	0	4
>= 31	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	0	0	0	7
>= 29	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	0	0	0	4
>= 27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	0	0	0	5
>= 25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	0	0	0	1
>= 23	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	0	0	0	0
>= 21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	0	0	0	1
>= 19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	0	0	0	2

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT.: 37 47N LONG.: 122 19W ELEV.: 15 FT  
MONTH : SEP  
PAGE 2

DRY-BULB TEMP.	$\Sigma$	FREQ.	WET BULB TEMPERATURE DEPRESSION (DEG F)	TOTAL	TOTAL OBS													
0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	> 30	D.B./ DRY	WET WET DEM
(DEG F)																	W.B. BULB	BULB PT.

[illegible]

ELEMENTARY	SUM X	SUM X**2	MEAN	STD DEV	# OBS	4.D - MEAN NO. OF HOURS WITH TEMP.					TOTAL	
						<=0 F	<=32 F	>=67 F	>=73 F	>=80 F		>=93 F
28 - REL HUM	559773.	42699853.	72.8	16.179	7673							
15 - DRY BULB	489865.	31641299.	63.8	7.066	7677							720
16 - WET BULB	445474.	25964706.	58.1	3.640	7673	.1	.0	210.6	80.9	26.8	1.2	720
17 - DEW PT.	414304.	22488108.	54.0	4.060	7676	.7	.1	11.5	.0	.0	.0	720
						.0	1.9	.6	.0	.0	.0	720

## 3 - PSYCHROMETRIC SUMMARY

023239 ALAMEDA, CA

PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

MONTH : OCT

PAGE 1

DRY-BULB TEMP. (DEG F)	1 FREQ. WET BULB TEMPERATURE DEPRESSION (DEG F)										TOTAL		TOTAL OBS									
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	> 30	D.B./ W.B.	BULB	WEI	DEM	
>= 97	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	1	0	0
>= 95	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	2	0	0
>= 93	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	1	0	0
>= 91	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	1	0	0
>= 89	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	1	0	0
>= 87	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8	8	0	0
>= 85	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20	20	0	0
>= 83	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	32	32	0	0
>= 81	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	38	38	0	0
>= 79	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	61	61	0	0
>= 77	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	66	66	0	0
>= 75	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	114	114	0	0
>= 73	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	175	175	0	0
>= 71	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	224	224	1	0
>= 69	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	330	330	3	1
>= 67	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	442	442	11	0
>= 65	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	591	591	96	4
>= 63	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	710	710	255	24
>= 61	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	924	924	551	76
>= 59	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1111	1111	974	259
>= 57	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1182	1182	1363	633
>= 55	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1073	1073	1649	1133
>= 53	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	601	601	1371	1590
>= 51	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	163	163	862	1382
>= 49	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	47	47	436	955
>= 47	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14	14	213	650
>= 45	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	92	366
>= 43	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	35	252
>= 41	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	7	165
>= 39	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	6	121
>= 37	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	5	85
>= 35	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	2	66
>= 33	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	50
>= 31	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	33
>= 29	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	13
>= 27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	16
>= 25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	16
>= 23	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	12
>= 21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	8
>= 19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	7
>= 17	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	5
>= 15	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	1
>= 13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	3
>= 11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	4
>= 9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	2
>= 7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	2
>= 5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	1

# 3 - PSYCHROMETRIC SUMMARY

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : OCT  
PAGE 2

DRY-BULB 0 1-2 3-4 5-6 7-8 9-10 11-12 13-14 15-16 17-18 19-20 21-22 23-24 25-26 27-28 29-30 > 30 D.B. / TOTAL TOTAL OBS  
TEMP. (DEG F) X FREQ. WET BULB TEMPERATURE DEPRESSION (DEG F) DRY WET DEV

TOTAL 1.4 21.5 27.1 18.0 11.9 7.6 4.5 2.8 1.6 1.3 1.1 .7 .4 .1 .1 .0\* .0\* 7932 7936 7935  
W.B. BULB BULB PT.

ELEMENT(X) SUM X SUM X#2 MEAN STD DEV # OBS

28 - REL HUM 568446. 43099638. 71.7 17.257 7932  
15 - DRY BULB 487050. 30225994. 61.4 6.494 7936  
16 - WET BULB 441231. 24679521. 55.6 4.130 7932  
17 - DEW PT. 405321. 20993309. 51.1 6.040 7935

40 - MEAN NO. OF HOURS WITH TEMP.

<=0 F <=32 F >=67 F >=73 F >=80 F >=93 F TOTAL  
.0 .0 142.2 48.7 12.2 .4 744  
.4 .4 1.4 .0 .0 .0 744  
.0 11.5 .1 .0 .0 .0 744

## 3 - PSYCHROMETRIC SUMMARY

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : NOV  
PAGE 1

DRY-BULB		% FREQ. WET BULB TEMPERATURE DEPRESSION (DEG F)																	TOTAL		TOTAL OBS		
TEMP.	(DEG F)	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	> 30	W.B.	BULB	BULB	PT.	
>= 81		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	.0	.0	.0	.0	.0	.0	.0	3	3	0	0
>= 79		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	.0*	.0	.0	.0	.0	.0	.0	.0	3	3	0	0
>= 77		.0	.0	.0	.0	.0	.0	.0*	.0	.0*	.0	.0*	.0*	.0	.0	.0	.0	.0	.0	5	5	0	0
>= 75		.0	.0	.0	.0	.0	.0	.0	.0*	.0*	.0	.0*	.0	.0	.0	.0	.0	.0	.0	16	16	0	0
>= 73		.0	.0	.0	.0	.0	.1	.1	.1	.1	.1	.0*	.0	.0	.0	.0	.0	.0	.0	31	31	0	0
>= 71		.0	.0	.0	.0*	.1	.2	.2	.1	.1	.0*	.0*	.0*	.0	.0	.0	.0	.0	.0	59	59	0	0
>= 69		.0	.0	.0*	.0*	.1	.3	.3	.2	.1	.0*	.0*	.0	.0	.0	.0	.0	.0	.0	84	84	0	0
>= 67		.0	.0	.0*	.2	.3	.5	.3	.2	.1	.1	.0*	.0	.0	.0	.0	.0	.0	.0	128	128	1	0
>= 65		.0	.0*	.2	.4	.6	.5	.4	.2	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	196	196	5	0
>= 63		.0*	.2	.4	1.1	.9	.7	.4	.3	.2	.0*	.0	.0	.0	.0	.0	.0	.0	.0	331	331	26	5
>= 61		.1	.9	1.1	2.1	1.4	.9	.2	.1	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	538	538	101	18
>= 59		.2	2.4	2.5	2.4	1.4	.9	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	792	792	285	95
>= 57		.5	3.9	4.3	3.1	1.4	.7	.2	.1	.0*	.0*	.0	.0	.0	.0	.0	.0	.0	.0	1085	1085	595	244
>= 55		.4	4.7	5.4	2.8	1.5	.5	.2	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	1209	1209	944	424
>= 53		.2	4.9	5.4	2.2	.8	.3	.2	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	1086	1086	1151	664
>= 51		.3	4.1	4.2	2.2	.9	.2	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	923	923	1327	908
>= 49		.4	2.9	2.9	1.4	.5	.2	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	643	643	1166	1109
>= 47		.1	1.6	1.4	.8	.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	338	338	839	1017
>= 45		.0*	.5	.7	.3	.1	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	137	137	606	863
>= 43		.0*	.1	.3	.1	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	54	54	326	634
>= 41		.0*	.1	.1	.0*	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	15	157	514
>= 39		.0	.0	.0	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	1	94	343
>= 37		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	33	261
>= 35		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	17	173
>= 33		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	3	102
>= 31		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	86
>= 29		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	56
>= 27		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	43
>= 25		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	40
>= 23		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	22
>= 21		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	14
>= 19		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	18
>= 17		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	8
>= 15		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	6
>= 13		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	3
>= 11		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	5
>= 9		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0	2
TOTAL		2.3	26.4	28.9	19.2	10.4	6.1	3.1	1.9	1.1	.3	.2	.0*	.0	.0	.0	.0	.0	.0	7677	7678	7677	

40 - MEAN NO. OF HOURS WITH TEMP.  
<=0 F <=32 F <=67 F >=73 F >=80 F >=93 F TOTAL

ELEMENT(x)	SUM X	SUM X**2	MEAN STD DEV	# ORS
28 - WET HUM	564013.	43427085.	73.5	16.123
15 - DRY BULB	429547.	24266099.	55.9	5.533
16 - WET BULB	393337.	20324405.	51.2	4.762
17 - DEW PT.	359431.	17200509.	46.8	6.964

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FI  
MONTH : DEC  
PAGE : 1

DRY-BULB  
TEMP.  
(DEG F)

3. FREQ. WET BULB TEMPERATURE DEPRESSION (DEG F)

TOTAL S.B./ W.B.	TOTAL OBS DRY BULB	WET DEM BULB	PY. PY.
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[illegible]

ELEMENT(X)	SUM X	SUM X**2	MEAN	STD DEV	# OBS	Q - MEAN NO. OF HOURS WITH TEMP.
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[illegible]

023239 ALAMEDA CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37.47N LONG. : 122.19W ELEV. : 15 FT  
MONTH : ANN  
PAGE : 1

DRY-BULB  
TEMP. (DEG F)

% FREQ. WET BULB TEMPERATURE DEPRESSION (DEG F)

TOTAL	TOTAL OBS
D.B./	DRY WET DEM
W.B.	BULB BULB PT.

[illegible]



# 3 - PSYCHROMETRIC SUMMARY

023239. ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : ANN  
PAGE 2

DRY-BULB TEMP. (DEG F)	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	TOTAL		
																	W.B.	BULB	TOTAL OBS
>= 5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10
>= 3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7
>= 1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4
>= -1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1
>= -3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2
>= -5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
>= -7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
>= -9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1
TOTAL	2.6	25.3	28.3	18.4	11.3	6.7	3.3	1.7	.9	.6	.3	.2	.1	.1	.0*	.0*	93489	93443	93469

ELEMENT(X)	SUM X	SUM X**2	MEAN STD DEV	# OBS
28 - REL HUM	6886536.	530364206.	73.7	15.635
15 - DRY BULB	5366347.	313516523.	57.4	7.659
16 - WET BULB	4906711.	260906841.	52.5	5.904
17 - DEW PT.	4515515.	222608493.	48.3	7.063

40 - MEAN NO. OF HOURS WITH TEMP.  
<=0 F <=32 F >=67 F >=73 F >=80 F >=93 F TOTAL

.0	.9	1032.4	320.8	86.0	3.7	8760
5.6	15.2	31.4	.5	.0	.0	8760
.4	260.8	1.2	.0	.0	.0	8760

NOTES :  
\* = PERCENT < .05

4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE  
VERSUS  
WIND DIRECTION  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JAN  
PAGE 1

TEMP. (DEG F)	NNW & N	NNE & E	ENE & E	ESE & E	SSE & S	SSW & S	WSW & W	WNW & W	CALM	TOTAL FREQ.	% OF TOTAL
>= 72	.0	.0	.0	.0	.0	.0	100.0	.0	.0	1	.0*
>= 67	30.8	7.7	7.7	.0	.0	15.4	7.7	15.4	15.4	13	.2
>= 62	11.8	7.5	8.6	7.5	10.8	18.3	9.7	17.2	8.6	93	1.2
>= 57	11.6	2.0	3.5	9.9	21.0	12.0	15.6	18.5	5.9	648	8.2
>= 52	16.1	2.3	3.6	17.1	18.1	7.8	11.1	14.5	9.5	2110	26.6
>= 47	25.8	4.1	4.4	13.0	11.5	3.9	6.3	16.4	14.6	2728	34.4
>= 42	31.4	5.8	8.2	14.5	7.9	2.0	2.7	10.3	17.2	1838	23.2
>= 37	27.9	7.4	8.1	17.2	4.1	.4	2.0	9.4	23.4	458	5.8
>= 32	33.3	13.3	4.4	20.0	.0	.0	.0	2.2	26.7	45	.6
TOTALS	23.4	4.1	5.3	14.4	12.7	5.1	7.2	14.2	13.7	7934	100.0

NOTES :  
\* = PERCENT < .05

4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE  
VERSUS  
WIND DIRECTION  
(FROM HOURLY OBSERVATIONS)

023230 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : FEB  
PAGE 1

TEMP. (DEG F)	NNW & N	NNE & NE	ENE & E	ESE & SE	WIND DIRECTION SSE & S	SSW & SW	WSW & W	WNW & NW	CALM	TOTAL FREQ.	% OF TOTAL
>= 77	100.0	.0	.0	.0	.0	.0	.0	.0	.0	1	.0*
>= 72	33.3	8.3	16.7	.0	.0	.0	.0	41.7	.0	12	.2
>= 67	15.6	6.5	5.2	1.3	3.9	1.3	22.1	39.0	5.2	77	1.1
>= 62	18.1	3.2	3.5	1.5	7.9	7.0	23.9	28.3	6.7	343	4.7
>= 57	13.3	3.2	2.7	6.0	15.8	11.9	19.2	16.6	7.3	1350	18.7
>= 52	15.1	2.4	2.8	13.6	17.4	7.6	16.2	13.8	11.1	2645	36.6
>= 47	22.0	3.5	4.5	12.7	10.3	5.1	11.8	14.7	15.3	2102	29.1
>= 42	25.1	7.2	9.4	16.9	3.2	2.2	5.8	10.9	19.3	626	8.7
>= 37	32.9	11.4	14.3	15.7	2.9	1.4	4.3	5.7	11.4	70	1.0
>= 32	.0	100.0	.0	.0	.0	.0	.0	.0	.0	1	.0*
TOTALS	18.0	3.5	4.1	11.9	13.0	7.0	14.9	15.6	12.1	7227	100.0

NOTES :  
\* = PERCENT < .05

4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE  
VERSUS  
WIND DIRECTION  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : MAR  
PAGE 1

TEMP. (DEG F)	NNW E N	NNE ENE	ENE E E	ESE ESE	WIND DIRECTION SSE E S	SSW SSW	WSW E W	WNW ENW	CALM	TOTAL FREQ.	% OF TOTAL
>= 82	.0	.0	.0	.0	.0	.0	100.0	.0	.0	1	.0*
>= 77	23.5	5.0	.0	5.9	.0	.0	17.6	41.2	5.9	17	.2
>= 72	21.2	1.9	3.8	.0	1.9	9.6	21.2	40.4	.0	52	.7
>= 67	19.5	2.9	2.4	.0	1.4	7.1	31.0	34.3	1.4	210	2.6
>= 62	12.5	2.8	1.9	.9	5.7	8.4	39.9	25.8	2.1	574	7.2
>= 57	9.9	2.0	1.0	5.3	14.1	10.1	37.9	19.4	4.3	1612	20.3
>= 52	10.8	2.2	2.3	10.2	13.3	10.6	28.5	16.4	7.8	3055	38.5
>= 47	14.3	2.9	6.4	12.8	7.2	5.9	21.0	20.1	9.4	2018	25.4
>= 42	22.3	7.4	9.0	18.5	5.4	1.6	9.0	17.4	9.3	367	4.6
>= 37	25.0	7.1	21.4	10.7	.0	3.6	3.6	25.0	3.6	28	.4
TOTALS	12.6	2.6	3.4	9.2	10.5	8.6	26.7	19.4	6.9	7934	100.0

NOTES :  
\* = PERCENT < .05

4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE  
VERSUS  
WIND DIRECTION  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : APR  
PAGE 1

TEMP. (DEG F)	NNW		NNE		ENE		ESE		SSE		SSW		WSW		WNW		CALM		TOTAL FREQ.		% OF TOTAL	
	E N	N N	E NE	N E	E E	E SE	E S	S S	S SW	SW W	W W	W NW	E W	W NW	W NW	W NW						
>= 87	.0	50.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	.0	.0*	
>= 82	8.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12	.2	.7	
>= 77	5.6	11.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	54	1.8	1.8	
>= 72	10.6	1.4	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	141	4.2	4.2	
>= 67	9.9	2.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	323	10.8	10.8	
>= 62	7.7	1.0	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	827	22.2	22.2	
>= 57	8.9	1.3	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	1707	36.8	36.8	
>= 52	8.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2828	20.9	20.9	
>= 47	10.9	2.3	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	1603	2.3	2.3	
>= 42	17.8	3.9	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	180	.0*	.0*	
>= 37	.0	.0	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	3	100.0	100.0	
TOTALS	9.1	1.6	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	7680			

NOTES :  
\* = PERCENT < .05

# 4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE

VERSUS  
WIND DIRECTION  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : MAY  
PAGE 1

TEMP. (DEG F)	NNW & N		NNE & E		ENE & E		ESE & S		SSW & W		WSW & W		WNW & NW		CALM		TOTAL FREQ.		% OF TOTAL	
>= 92	25.0		.0		.0		.0		.0		25.0		50.0		.0		4		.1	
>= 87	25.0		.0		.0		.0		.0		33.3		41.7		.0		12		.2	
>= 82	10.0		.0		3.3		.0		.0		36.7		46.7		.0		30		.4	
>= 77	6.2		1.2		.0		.0		3.7		39.5		48.1		1.2		81		1.0	
>= 72	9.0		.6		.0		.0		6.8		51.4		29.4		2.3		177		2.2	
>= 67	6.4		1.0		.0		.2		7.0		58.6		21.9		2.7		517		6.5	
>= 62	3.8		.5		.3		1.7		10.4		50.0		15.4		3.2		1327		16.7	
>= 57	3.9		.4		.0*		2.1		12.0		51.6		14.1		6.6		2047		25.8	
>= 52	4.3		.8		1.4		3.3		15.1		50.6		13.7		5.9		2925		36.9	
>= 47	3.4		.6		2.1		3.5		17.5		44.4		17.6		7.4		800		10.1	
>= 42	6.7		.0		6.7		13.3		.0		.0		66.7		6.7		15		.2	
TOTALS	4.3		.6		.8		2.4		12.8		51.9		16.0		5.4		7935		100.0	

NOTES :  
\* = PERCENT < .05

4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE  
VERSUS  
WIND DIRECTION  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JUN  
PAGE 1

TEMP. (DEG F)	NNW		NNE		ENE		ESE		SSE		SSW		WSW		WNW		CALM		TOTAL FREQ.		% OF TOTAL	
	E	N	E	N	E	N	E	S	E	S	W	W	E	W	E	N						
>= 97	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20.0	20.0	60.0	60.0	20.0	20.0	.0	.0	5	5	.1	.1
>= 92	10.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.0	10.0	30.0	30.0	50.0	50.0	.0	.0	10	10	.1	.1
>= 87	8.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.9	2.9	48.6	48.6	37.1	37.1	.0	.0	35	35	.5	.5
>= 82	20.3	.0	.0	.0	.0	.0	.0	1.4	.0	.0	2.9	2.9	37.7	37.7	34.8	34.8	2.9	2.9	69	69	.9	.9
>= 77	9.4	.0	.0	.0	.0	.0	.7	.0	.0	.0	5.8	5.8	44.9	44.9	34.1	34.1	2.2	2.2	138	138	1.8	1.8
>= 72	6.2	.0	.0	.0	.0	.0	.3	.8	.0	.0	5.9	5.9	56.0	56.0	26.1	26.1	2.2	2.2	357	357	4.6	4.6
>= 67	3.9	.0	.0	.0	.0	.0	.2	3.7	.0	.0	9.0	9.0	61.0	61.0	18.7	18.7	3.2	3.2	945	945	12.3	12.3
>= 62	4.2	.0	.0	.0	.0	.0	.1	5.6	.0	.0	8.1	8.1	61.7	61.7	13.4	13.4	5.0	5.0	1584	1584	20.6	20.6
>= 57	2.5	.0	.0	.0	.0	.0	.6	4.4	.0	.0	11.9	11.9	60.3	60.3	12.0	12.0	5.7	5.7	2341	2341	30.5	30.5
>= 52	1.6	.0	.0	.0	.0	.0	.9	4.4	.0	.0	18.0	18.0	58.1	58.1	9.7	9.7	4.8	4.8	2104	2104	27.4	27.4
>= 47	.0	.0	.0	.0	.0	.0	1.1	9.8	.0	.0	18.5	18.5	55.4	55.4	9.8	9.8	3.3	3.3	92	92	1.2	1.2
TOTALS	3.2	.0	.0	.0	.0	.0	.5	4.3	.0	.0	12.0	12.0	59.3	59.3	13.9	13.9	4.7	4.7	7680	7680	100.0	100.0

NOTES :  
\* = PERCENT < .05

4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE  
VERSUS  
WIND DIRECTION  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JUL  
PAGE 1

TEMP. (DEG F)	NNW		NNE		ENE		ESE		SSE		SSW		WSW		WNW		CALM		TOTAL FREQ.		% OF TOTAL	
	E N	E N	E NE	E NE	E E	E E	E SE	E SE	E S	E S	E SW	E SW	E W	E W	E NW	E NW						
>= 97	50.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	50.0	.0	.0	.0	2	.0	.0	.0
>= 92	16.7		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	50.0	.0	33.3	.0	.0	.0	6	.1	.1	.1
>= 87	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	16.7	.0	83.3	.0	.0	.0	24	.3	.3	.3
>= 82	14.0		.0	.0	.0	.0	.0	.0	4.7	.0	2.3	.0	41.9	.0	37.2	.0	.0	.0	43	.5	.5	.5
>= 77	10.8		.7	.0	.0	.0	.0	.0	1.4	.0	.7	.0	47.5	.0	38.8	.0	.0	.0	139	1.8	1.8	1.8
>= 72	6.6		.3	.0	.0	.0	.6	.0	.9	.0	5.5	.0	49.4	.0	35.1	1.7	.0	.0	348	4.4	4.4	4.4
>= 67	3.0		.4	.3	.3	.3	.3	.3	1.2	.0	6.4	.0	63.1	.0	22.9	2.3	.0	.0	1151	14.5	14.5	14.5
>= 62	3.1		.4	.1	.1	.1	.8	.0	3.1	.0	8.5	.0	52.7	.0	16.9	4.5	.0	.0	1730	21.8	21.8	21.8
>= 57	2.0		.2	.1	.1	.1	1.0	.0	2.0	.0	14.4	.0	60.5	.0	14.4	5.5	.0	.0	2703	34.1	34.1	34.1
>= 52	1.2		.1	.3	.3	.3	.9	.0	2.1	.0	23.0	.0	57.5	.0	11.5	3.5	.0	.0	1738	21.9	21.9	21.9
>= 47	.0		.0	.0	.0	.0	.0	.0	2.0	.0	26.0	.0	64.0	.0	6.0	2.0	.0	.0	50	.6	.6	.6
TOTALS	2.6		.3	.7	.7	.7	.7	.7	2.1	.0	13.2	.0	59.7	.0	17.2	4.0	.0	.0	7934	100.0	100.0	100.0

NOTES :  
\* = PERCENT < .05



4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE  
VERSUS  
WIND DIRECTION  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 10W ELEV. : 15 FT  
MONTH : AUG  
PAGE 1

TEMP. (DEG F)	NNW		NNE		ENE		ESE		SSE		SSW		WSW		WNW		CALM	TOTAL FREQ.	% OF TOTAL
	& N	& N	& NE	& NE	& E	& E	& SE	& SE	& S	& S	& SW	& SW	& W	& W	& NW	& NW			
>= 97	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	100.0	.0	1	.0*
>= 92	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	100.0	.0	1	.0*
>= 87	11.1	11.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	33.3	33.3	55.6	55.6	.0	9	.1
>= 82	13.7	13.7	2.0	.0	.0	.0	.0	.0	.0	.0	2.0	.0	31.4	31.4	51.0	51.0	.0	51	.6
>= 77	9.4	9.4	.7	.0	.0	.0	.7	.0	.0	.0	1.4	.0	41.0	41.0	43.9	43.9	2.9	139	1.8
>= 72	3.5	3.5	.4	.0	.0	.0	.0	.0	1.6	.0	5.5	.0	55.9	55.9	32.5	32.5	.6	508	6.4
>= 67	2.5	2.5	.4	.0	.0	.0	.4	.0	3.5	.0	7.3	.0	63.4	63.4	19.9	19.9	2.6	1186	14.9
>= 62	3.1	3.1	.5	.0	.0	.0	1.8	.0	3.4	.0	9.6	.0	60.5	60.5	15.6	15.6	5.3	1761	22.2
>= 57	1.7	1.7	.4	.0	.0	.0	1.2	.0	2.8	.0	14.2	.0	61.2	61.2	11.7	11.7	6.2	2998	37.8
>= 52	1.6	1.6	.0	.0	.0	.0	.6	.0	2.4	.0	23.3	.0	53.7	53.7	12.5	12.5	5.6	1267	16.0
>= 47	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20.0	.0	53.3	53.3	6.7	6.7	20.0	15	.2
TOTALS	2.5	2.5	.4	.0	.0	.0	1.0	.0	2.8	.0	12.7	.0	59.2	59.2	16.1	16.1	4.9	7936	100.0

NOTES :  
\* = PERCENT < .05

4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE  
VERSUS  
WIND DIRECTION  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : SEP  
PAGE 1

TEMP. (DEG F)	NNW & N	NNE & NE	ENE & E	ESE & SE	WIND DIRECTION SSE & S	SSW & SW	WSW & W	WNW & NW	CALM	TOTAL FREQ.	% OF TOTAL
>=102	50.0	.0	.0	.0	.0	.0	.0	50.0	.0	2	.0*
>= 97	.0	.0	.0	.0	.0	.0	33.3	66.7	.0	3	.0*
>= 92	14.3	.0	.0	.0	.0	.0	28.6	50.0	7.1	14	.2
>= 87	18.2	3.6	.0	.0	.0	1.8	21.8	50.9	3.6	55	.7
>= 82	14.8	.7	.7	.7	1.5	3.7	36.3	39.3	2.2	135	1.8
>= 77	14.3	3.6	.0	.0	1.3	3.1	39.9	31.8	4.9	223	2.9
>= 72	11.1	1.0	.0	.2	2.3	4.5	49.1	27.0	4.8	603	7.9
>= 67	8.8	1.8	.6	2.0	4.5	7.5	49.6	19.1	6.2	1211	15.8
>= 62	6.7	1.2	.9	2.9	6.9	8.7	47.2	15.0	10.6	1964	25.6
>= 57	4.8	.6	1.9	4.2	2.4	10.9	48.3	15.2	11.7	2644	34.4
>= 52	3.3	.7	2.2	2.5	2.9	14.0	49.0	14.7	10.7	815	10.6
>= 47	12.5	.0	.0	.0	.0	.0	37.5	37.5	12.5	8	.1
TOTALS	6.8	1.1	1.3	2.8	3.8	9.1	47.7	17.9	9.5	7677	100.0

NOTES :  
\* = PERCENT < .05

4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE  
VERSUS  
WIND DIRECTION  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : OCT  
PAGE 1

TEMP. (DEG F)	NNW		NNE		ENE		ESE		SSE		SSW		WSW		WNW		CALM		TOTAL FREQ.		# OF TOTAL	
	E N	N N	E NE	NE	E E	EE	ESE	SE	SSE	SS	SSW	WSW	E W	WNW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW
>= 97	.0	.0	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 92	.0	.0	.0	.0	33.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 87	30.0	30.0	20.0	6.6	10.0	.0	.0	.0	.0	.0	.0	20.0	11.8	20.0	20.0	.0	.0	.0	.0	.0	.0	.0
>= 82	27.6	27.6	6.6	6.6	.0	.0	1.3	3.9	.0	2.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>= 77	14.9	14.9	5.7	1.4	1.4	.0	.0	2.1	.0	5.0	.0	26.2	26.2	41.8	41.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
>= 72	20.7	20.7	2.8	1.0	1.0	.5	.5	3.1	3.1	7.2	7.2	28.9	28.9	30.5	30.5	5.2	5.2	5.2	5.2	5.2	5.2	5.2
>= 67	14.5	14.5	2.8	1.1	1.1	3.2	3.2	6.3	6.3	7.8	7.8	36.7	36.7	22.2	22.2	5.3	5.3	5.3	5.3	5.3	5.3	5.3
>= 62	13.7	13.7	2.6	1.3	1.3	5.1	5.1	10.4	10.4	8.4	8.4	32.1	32.1	15.6	15.6	9.8	9.8	9.8	9.8	9.8	9.8	9.8
>= 57	11.8	11.8	3.1	3.1	3.1	8.1	8.1	6.7	6.7	7.3	7.3	31.4	31.4	13.7	13.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
>= 52	10.9	10.9	3.2	4.8	4.8	9.7	9.7	3.3	3.3	6.8	6.8	27.6	27.6	13.5	13.5	20.3	20.3	20.3	20.3	20.3	20.3	20.3
>= 47	21.8	21.8	5.5	10.0	10.0	14.5	14.5	1.8	1.8	2.7	2.7	11.8	11.8	11.8	11.8	20.0	20.0	20.0	20.0	20.0	20.0	20.0
TOTALS	13.1	13.1	3.1	2.9	2.9	6.7	6.7	6.4	6.4	7.3	7.3	30.8	30.8	16.6	16.6	13.1	13.1	13.1	13.1	13.1	13.1	13.1

NOTES :  
\* = PERCENT < .05

4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE  
VERSUS  
WIND DIRECTION  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : NOV  
PAGE 1

TEMP. (DEG F)	NNW		NNE		ENE		ESE		SSE		SSW		WSW		WNW		CALM		TOTAL FREQ.		% OF TOTAL	
	E N	E N	E NE	E NE	E E	E E	E SE	E SE	E S	E S	E SW	E SW	E W	E W	E NW	E NW						
>= 77	18.2	0	0	0	0	0	0	0	0	0	9.1	9.1	36.4	36.4	27.3	27.3	9.1	9.1	11	11	.1	.1
>= 72	25.0	7.8	4.7	1.6	0	0	0	0	6.3	6.3	3.1	3.1	21.9	21.9	15.6	15.6	14.1	14.1	64	64	.8	.8
>= 67	18.9	4.3	3.5	.4	0	0	0	0	2.4	2.4	7.1	7.1	28.3	28.3	28.3	28.3	6.7	6.7	254	254	3.3	3.3
>= 62	13.6	3.4	2.2	3.6	0	0	0	0	13.3	13.3	9.2	9.2	21.1	21.1	22.0	22.0	11.6	11.6	759	759	9.9	9.9
>= 57	14.8	3.3	2.5	11.9	0	0	0	0	15.7	15.7	7.5	7.5	17.4	17.4	14.9	14.9	12.0	12.0	2184	2184	28.4	28.4
>= 52	17.4	3.7	4.9	16.7	0	0	0	0	10.0	10.0	4.6	4.6	12.0	12.0	12.4	12.4	18.2	18.2	2812	2812	36.6	36.6
>= 47	20.8	6.5	10.4	18.2	0	0	0	0	5.0	5.0	1.5	1.5	5.0	5.0	10.1	10.1	22.3	22.3	1387	1387	18.1	18.1
>= 42	25.6	10.3	14.3	19.2	0	0	0	0	3.9	3.9	.5	.5	3.0	3.0	4.4	4.4	18.7	18.7	203	203	2.6	2.6
>= 37	25.0	25.0	25.0	25.0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	4	.1	.1
TOTALS	17.2	4.3	5.2	13.7	0	0	0	0	10.6	10.6	5.3	5.3	13.6	13.6	14.1	14.1	16.1	16.1	7678	7678	100.0	100.0

NOTES :  
\* = PERCENT < .05

4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE  
VERSUS  
WIND DIRECTION  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : DEC  
PAGE 1

TEMP. (DEG F)	NNW		NNE		ENE		ESE		SSE		SSW		WSW		WNW		CALM		TOTAL FREQ.		% OF TOTAL	
	E	N	E	N	E	E	E	E	E	S	S	W	W	W	W	W						
>= 72	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	.0	.0	.0
>= 67	21.1	10.5	5.3	5.3	5.3	5.3	5.3	5.3	.0	.0	10.5	10.5	10.5	10.5	26.3	10.5	10.5	19	.2	.2	.2	.2
>= 62	19.3	5.0	5.0	5.0	5.0	5.0	5.0	5.0	11.8	11.8	9.2	9.2	16.8	16.8	23.5	7.6	7.6	119	1.5	1.5	1.5	1.5
>= 57	14.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	21.9	21.9	7.6	7.6	14.3	14.3	17.1	9.1	9.1	971	12.2	12.2	12.2	12.2
>= 52	18.5	3.2	4.2	4.2	4.2	4.2	4.2	4.2	16.1	16.1	5.6	5.6	9.8	9.8	13.8	13.8	13.8	2527	31.9	31.9	31.9	31.9
>= 47	24.2	3.9	7.2	7.2	7.2	7.2	7.2	7.2	9.1	9.1	2.9	2.9	4.7	4.7	14.2	14.2	19.7	2513	31.7	31.7	31.7	31.7
>= 42	26.6	5.8	9.4	9.4	9.4	9.4	9.4	9.4	7.3	7.3	1.7	1.7	1.9	1.9	12.6	12.6	22.2	1389	17.5	17.5	17.5	17.5
>= 37	25.9	8.0	7.2	7.2	7.2	7.2	7.2	7.2	6.6	6.6	.9	.9	.6	.6	4.6	4.6	29.9	348	4.4	4.4	4.4	4.4
>= 32	13.5	29.7	16.2	16.2	16.2	16.2	16.2	16.2	.0	.0	.0	.0	.0	.0	2.7	2.7	27.0	37	.5	.5	.5	.5
>= 27	.0	25.0	12.5	12.5	12.5	12.5	12.5	12.5	.0	.0	.0	.0	.0	.0	.0	.0	62.5	8	.1	.1	.1	.1
TOTALS	21.5	4.1	6.0	6.0	6.0	6.0	6.0	6.0	12.5	12.5	4.1	4.1	7.0	7.0	13.9	13.9	17.3	7933	100.0	100.0	100.0	100.0

NOTES :  
\* = PERCENT < .05

4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE  
VERSUS  
WIND DIRECTION  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : ANN  
PAGE 1

TEMP. (DEG F)	NNW & N		NNE & E		ENE & E		ESE & E		SSE & S		SSW & W		WSW & W		WNW & W		CALM		TOTAL FREQ.		% OF TOTAL	
	NNW & N		NNE & E		ENE & E		ESE & E		SSE & S		SSW & W		WSW & W		WNW & W		CALM		TOTAL FREQ.		% OF TOTAL	
>= 102	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	2	0.0	0.0	0.0
>= 97	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.7	0.0	0.0	0.0	12	0.0	0.0	0.0
>= 92	13.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	38	0.0	0.0	0.0
>= 87	13.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.3	0.0	0.0	0.0	147	0.2	0.0	0.0
>= 82	17.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.2	0.0	0.0	0.0	417	0.4	0.0	0.0
>= 77	11.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	0.0	0.0	0.0	944	1.0	0.0	0.0
>= 72	10.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0	0.0	0.0	0.0	2652	2.8	0.0	0.0
>= 67	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0	0.0	0.0	0.0	6805	7.3	0.0	0.0
>= 62	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.2	0.0	0.0	0.0	12859	13.8	0.0	0.0
>= 57	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.8	0.0	0.0	0.0	23948	25.6	0.0	0.0
>= 52	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.8	0.0	0.0	0.0	26613	28.5	0.0	0.0
>= 47	19.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.3	0.0	0.0	0.0	13426	14.4	0.0	0.0
>= 42	27.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.8	0.0	0.0	0.0	4618	4.9	0.0	0.0
>= 37	27.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	0.0	0.0	0.0	911	1.0	0.0	0.0
>= 32	24.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	83	0.1	0.0	0.0
>= 27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8	0.0	0.0	0.0
TOTALS	11.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.2	0.0	0.0	0.0	93483	100.0	0.0	0.0

NOTES :  
\* = PERCENT < .05

# 11 - SKY COVER

023239 ALAMEDA, CA  
 LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 PERIOD OF RECORD : 1955-1986

MONTH	HOURS (LST)	PERCENTAGE FREQUENCY OF TOTAL SKY COVER (FROM HOURLY OBSERVATIONS)				TOTAL
		CLEAR	SCATTERED	BROKEN	OVERCAST	
JAN	01	31.3	20.5	13.1	35.1	990
	04	29.4	17.1	14.2	39.4	991
	07	17.1	21.8	20.9	40.3	991
	10	14.1	20.6	23.3	42.1	989
	13	13.8	23.2	25.9	37.1	992
	16	14.7	24.7	25.2	35.3	991
	19	24.1	23.8	20.7	31.5	992
	22	29.6	20.0	17.9	32.5	992
	ALL	21.8	21.5	20.2	36.6	7928
FEB	01	27.8	21.9	16.6	33.7	903
	04	25.9	17.9	17.7	38.5	904
	07	13.7	21.9	21.2	43.3	901
	10	13.3	18.4	27.1	41.2	903
	13	12.4	24.6	26.1	36.9	904
	16	11.5	25.4	25.6	37.5	903
	19	17.1	25.8	24.5	32.6	902
	22	26.8	22.4	19.7	31.1	903
	ALL	18.6	22.3	22.3	36.9	7223
MAR	01	32.7	18.2	19.8	29.3	990
	04	29.2	19.4	18.9	32.6	992
	07	16.6	21.5	25.0	36.8	991
	10	16.6	24.3	26.6	32.5	992
	13	17.5	27.2	26.1	29.1	992
	16	16.0	30.3	23.2	30.4	992
	19	17.0	32.4	24.2	25.5	991
	22	31.6	24.3	18.4	25.7	991
	ALL	22.3	24.7	22.8	30.2	7931
APR	01	37.2	24.8	16.3	21.7	958
	04	33.0	24.2	16.6	26.2	960
	07	19.5	26.9	23.6	30.0	957
	10	23.1	28.4	24.5	24.0	959
	13	22.4	31.0	26.4	20.2	960
	16	23.0	30.2	25.2	20.7	960
	19	20.7	36.0	23.5	19.7	960
	22	38.2	25.6	17.3	18.9	960
	ALL	27.3	28.4	21.7	22.7	7674

# 11 - SKY COVER

023239 ALAMEDA, CA  
 LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 PERIOD OF RECORD : 1955-1986

MONTH	HOURS (LST)	PERCENTAGE FREQUENCY OF TOTAL SKY COVER (FROM HOURLY OBSERVATIONS)				TOTAL
		CLEAR	SCATTERED	BROKEN	OVERCAST	
MAY	01	35.1	23.9	16.6	24.3	991
	04	28.0	23.3	17.7	30.9	992
	07	20.0	24.2	21.3	34.6	992
	10	27.9	27.6	20.9	23.6	992
	13	32.3	31.4	21.4	15.0	992
	16	30.1	35.7	20.8	13.4	992
	19	26.3	34.7	23.0	16.0	992
	22	35.7	28.3	14.6	21.4	992
	ALL	29.4	28.6	19.5	22.4	7935
JUN	01	35.6	20.9	14.9	28.5	960
	04	25.5	22.1	13.6	38.7	960
	07	21.0	20.5	18.6	39.8	960
	10	30.0	26.9	21.3	21.8	958
	13	40.2	33.9	16.8	9.2	960
	16	40.0	35.6	16.9	7.5	960
	19	32.3	34.7	21.9	11.1	960
	22	37.4	27.5	15.5	19.6	960
	ALL	32.9	27.8	17.4	22.0	7678
JUL	01	28.5	19.4	14.6	37.4	991
	04	21.7	15.7	14.0	48.6	992
	07	16.2	15.8	16.8	51.1	992
	10	31.5	24.6	18.6	25.3	992
	13	53.0	30.7	10.5	5.7	992
	16	57.3	30.6	8.6	3.5	992
	19	41.7	33.7	17.1	7.5	992
	22	35.0	24.7	14.7	24.6	991
	ALL	35.7	24.4	14.4	25.5	7934
AUG	01	27.0	22.5	14.6	35.9	992
	04	20.5	17.3	16.3	45.9	992
	07	13.9	15.6	19.7	51.2	992
	10	28.1	26.0	18.2	27.6	992
	13	48.5	33.2	12.9	5.4	992
	16	48.7	35.1	11.8	4.4	992
	19	33.2	35.8	17.6	13.4	992
	22	32.2	26.9	14.1	26.8	992
	ALL	31.5	26.5	15.6	26.3	7936



# 11 - SKY COVER

U23239 ALAMEDA, CA  
 LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 PERIOD OF RECORD : 1955-1986

MONTH	HOURS (LST)	PERCENTAGE FREQUENCY OF TOTAL SKY COVER (FROM HOURLY OBSERVATIONS)				TOTAL
		CLEAR	SCATTERED	BROKEN	OVERCAST	
SEP	01	40.1	19.3	16.5	24.2	960
	04	33.3	15.8	14.7	36.1	960
	07	22.7	18.8	21.2	37.3	960
	10	33.4	24.8	18.8	23.0	959
	13	47.9	30.0	14.6	7.5	960
	16	49.1	31.2	13.6	6.2	959
	19	40.7	33.1	16.0	10.3	959
	22	45.4	22.8	15.1	16.7	959
	ALL	39.1	24.5	16.3	20.2	7676
OCT	01	42.9	19.0	14.2	23.9	992
	04	38.4	18.2	13.0	30.3	992
	07	24.5	24.0	19.4	32.1	991
	10	26.4	27.2	19.3	27.1	992
	13	31.8	33.2	19.8	15.3	992
	16	35.5	30.1	21.6	12.8	992
	19	38.9	30.1	16.8	14.1	992
	22	44.0	22.3	15.9	17.8	992
	ALL	35.3	25.5	17.5	21.7	7935
NOV	01	34.5	21.4	17.9	26.2	960
	04	31.6	21.9	15.9	30.6	960
	07	15.2	28.5	22.9	33.3	960
	10	17.2	23.0	26.2	33.5	960
	13	18.6	28.6	25.6	27.1	960
	16	20.0	27.6	25.0	27.1	960
	19	28.9	26.0	21.6	23.5	960
	22	35.0	23.1	17.1	24.8	960
	ALL	25.1	25.1	21.5	28.3	7680
DEC	01	30.3	21.2	15.1	33.4	992
	04	30.0	20.0	14.0	36.0	992
	07	17.5	25.3	19.2	38.0	991
	10	16.3	23.2	22.1	38.4	992
	13	16.1	27.5	24.1	32.3	992
	16	17.1	27.3	22.2	33.4	991
	19	27.5	27.0	18.5	26.9	991
	22	32.0	22.5	15.9	29.6	991
	ALL	23.4	24.3	18.9	33.5	7932

# 11 - SKY COVER

023239 ALAMEDA, CA

LAT. : 37 47N LONG. : 122 10W ELEV. : 15 FT

PERIOD OF RECORD : 1955-1986

MONTH	HOURS (LST)	PERCENTAGE FREQUENCY OF TOTAL SKY COVER (FROM HOURLY OBSERVATIONS)				TOTAL
		CLEAR	SCATTERED	BROKEN	OVERCAST	
ANN	01	33.6	21.1	15.9	29.5	11679
	04	28.9	19.4	15.5	36.2	11687
	07	18.2	22.1	20.8	39.0	11678
	10	23.2	24.6	22.2	30.0	11680
	13	29.6	29.6	20.8	20.0	11688
	16	30.4	30.4	19.9	19.3	11684
	19	29.2	31.1	20.4	19.3	11683
	22	35.3	24.2	16.3	24.1	11683
	ALL	28.6	25.3	19.0	27.2	93462

## 12 - RELATIVE HUMIDITY

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

MONTH HOURS (LST)	10%	20%	30%	40%	50%	60%	70%	80%	90%	MEAN RELATIVE HUMIDITY	TOTAL NO. OF OBS.
JAN											
01	100.0	100.0	99.6	98.9	97.3	93.6	86.2	62.9	29.0	82.8	990
04	100.0	99.9	99.3	97.8	96.5	93.2	85.6	66.7	33.3	83.3	990
07	100.0	99.9	99.4	98.6	95.9	92.9	85.9	67.6	34.4	83.5	991
10	100.0	100.0	98.7	96.1	92.3	86.8	73.6	48.2	21.4	77.7	992
13	100.0	99.6	97.6	93.4	85.3	74.4	52.3	27.6	9.4	69.7	992
16	100.0	99.1	97.6	92.3	84.2	70.5	49.0	26.2	10.6	68.6	991
19	100.0	99.8	97.0	92.6	83.8	68.3	44.4	24.4	17.4	77.2	990
22	100.0	99.7	99.1	98.5	97.1	93.2	83.6	57.9	23.9	81.3	990
ALL	100.0	99.7	98.8	96.7	92.8	86.6	73.6	50.2	22.4	78.0	7926
FEB											
01	100.0	99.7	99.2	98.5	96.6	93.0	84.1	55.5	21.9	80.9	904
04	100.0	99.8	99.1	98.0	96.1	92.8	86.0	60.2	27.2	81.9	904
07	100.0	99.9	99.0	97.6	95.8	92.8	85.6	63.7	27.2	82.2	904
10	100.0	99.8	98.2	94.9	92.0	84.4	66.6	38.3	17.4	75.1	904
13	100.0	99.4	96.5	91.2	81.0	62.9	39.3	20.5	6.4	65.5	904
16	100.0	99.2	96.7	91.6	81.2	59.5	36.3	17.4	5.1	64.4	903
19	100.0	99.8	99.1	97.9	94.1	85.3	64.2	34.6	9.5	74.3	902
22	100.0	99.9	99.4	98.6	97.3	93.8	78.7	47.3	15.7	78.8	903
ALL	100.0	99.7	98.4	96.0	91.8	83.1	67.6	42.2	16.3	75.4	7228
MAR											
01	100.0	99.9	99.4	98.8	97.7	92.5	77.8	45.4	12.0	78.3	992
04	100.0	99.8	99.3	98.4	97.0	92.0	80.5	50.1	18.2	79.2	992
07	100.0	100.0	99.4	98.3	96.2	91.3	79.5	52.7	18.6	79.5	992
10	100.0	99.6	98.2	94.9	88.8	74.3	50.9	22.3	5.4	69.2	992
13	100.0	99.1	95.6	88.3	73.5	48.0	24.5	11.1	2.3	59.8	992
16	100.0	98.8	96.4	89.6	77.3	51.3	26.5	11.0	3.0	61.1	992
19	100.0	99.6	98.6	97.5	93.4	80.2	55.6	24.4	5.8	71.2	992
22	100.0	99.9	99.2	98.5	96.1	88.7	69.8	37.3	9.0	75.6	991
ALL	100.0	99.6	98.2	95.5	90.0	77.3	58.2	31.8	9.3	71.7	7935
APR											
01	100.0	100.0	100.0	99.7	97.8	93.1	77.6	44.1	7.6	77.7	958
04	100.0	100.0	99.8	99.3	97.1	93.1	81.0	52.0	11.5	79.1	959
07	100.0	100.0	99.5	98.1	95.8	90.0	76.1	45.0	9.7	77.2	959
10	100.0	99.5	97.7	94.9	87.6	68.5	35.9	10.2	2.0	65.2	959
13	100.0	98.7	95.6	87.6	69.0	36.8	15.6	5.7	2.0	56.7	959
16	100.0	99.6	97.7	91.1	74.5	42.5	17.1	5.6	1.1	58.6	957
19	100.0	99.9	99.4	98.4	93.7	79.1	50.4	17.7	3.0	69.8	958
22	100.0	100.0	100.0	99.5	97.1	90.2	71.1	32.3	5.5	75.2	958
ALL	100.0	99.7	98.7	96.1	89.1	74.2	53.1	26.6	5.3	69.9	7667

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

MONTH	HOURS (LST)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN							90%	MEAN RELATIVE HUMIDITY	TOTAL NO. OF OBS.	
		10%	20%	30%	40%	50%	60%	70%				80%
MAY	01	100.0	100.0	100.0	100.0	99.0	96.0	84.6	48.9	11.1	79.9	991
	04	100.0	100.0	100.0	99.9	99.4	96.2	86.7	53.0	13.8	80.9	992
	07	100.0	100.0	99.9	99.8	97.9	92.3	75.6	34.8	7.3	76.9	992
	10	100.0	99.9	99.3	96.3	86.1	62.1	28.1	8.1	.6	63.8	992
	13	100.0	99.1	97.3	89.6	71.0	37.1	10.4	2.7	.5	56.4	992
	16	100.0	99.6	98.8	93.5	79.3	44.6	17.0	3.4	.4	59.3	992
	19	100.0	100.0	99.6	98.3	94.9	83.0	51.8	17.4	2.6	70.4	992
	22	100.0	100.0	99.8	99.8	98.8	94.4	78.2	36.0	7.3	77.3	992
	ALL	100.0	99.8	99.4	97.2	95.8	75.7	54.1	25.5	5.4	70.5	7935
JUN	01	100.0	100.0	100.0	99.9	99.8	98.9	92.2	60.4	14.1	82.4	960
	04	100.0	100.0	100.0	100.0	99.7	99.2	93.4	69.0	17.4	83.8	960
	07	100.0	99.9	99.8	99.7	98.7	95.5	83.5	45.7	6.2	78.9	960
	10	100.0	99.7	99.1	97.0	90.2	72.9	35.3	10.2	1.0	66.1	960
	13	100.0	98.7	97.0	91.2	76.2	42.6	10.5	3.0	.3	57.4	960
	16	100.0	99.4	98.0	93.1	80.4	51.5	16.0	3.3	.5	59.8	959
	19	100.0	99.8	99.4	98.3	95.0	84.2	55.7	21.1	1.8	71.2	959
	22	100.0	100.0	100.0	99.9	99.4	97.2	86.7	46.3	9.2	79.7	959
	ALL	100.0	99.7	99.2	97.4	92.4	80.2	59.2	32.4	6.6	72.4	7677
JUL	01	100.0	100.0	100.0	100.0	100.0	99.8	95.6	71.7	22.0	84.9	992
	04	100.0	100.0	100.0	100.0	100.0	100.0	97.8	77.2	25.9	86.1	992
	07	100.0	100.0	100.0	100.0	99.8	98.7	91.4	63.5	14.2	82.8	991
	10	100.0	100.0	100.0	99.3	95.9	82.5	47.0	14.0	1.4	69.6	991
	13	100.0	100.0	100.0	98.5	82.8	49.9	10.9	1.7	.3	59.4	992
	16	100.0	100.0	99.1	95.9	87.2	56.8	14.7	1.8	.1	61.1	991
	19	100.0	100.0	99.9	99.5	97.5	90.0	65.1	28.2	2.3	74.0	990
	22	100.0	100.0	100.0	100.0	99.8	99.0	91.3	62.9	13.6	82.7	990
	ALL	100.0	100.0	99.7	98.7	95.4	84.6	64.2	40.1	10.0	75.1	7929
AUG	01	100.0	100.0	100.0	100.0	100.0	99.9	98.7	77.6	22.1	85.9	992
	04	100.0	100.0	100.0	100.0	100.0	100.0	99.3	81.4	27.1	86.8	992
	07	100.0	100.0	100.0	100.0	100.0	100.0	97.5	72.7	24.5	85.0	992
	10	100.0	100.0	100.0	99.6	97.9	87.6	51.3	16.1	1.6	70.9	992
	13	100.0	100.0	99.5	96.1	83.6	49.5	10.5	1.7	.2	59.6	992
	16	100.0	100.0	99.7	97.3	87.4	61.3	16.6	3.2	.4	62.1	991
		100.0	100.0	99.4	99.4	99.0	95.2	74.7	39.8	4.1	76.9	991

ALL

ISSUED

7.0

## 12 - RELATIVE HUMIDITY

023239 ALAMEDA, CA

PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

MONTH HOURS (LST)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN										MEAN RELATIVE HUMIDITY	TOTAL NO. OF OBS.
	10%	20%	30%	40%	50%	60%	70%	80%	90%	RELATIVE HUMIDITY		
SEP	01	100.0	99.8	99.5	99.5	98.6	97.0	89.6	66.1	16.8	82.4	960
	04	100.0	100.0	99.6	99.5	99.1	97.8	92.2	70.6	21.4	83.8	960
	07	100.0	99.9	99.6	99.5	98.5	97.0	90.0	66.6	18.9	82.8	959
	10	100.0	99.6	98.9	96.1	89.9	76.2	40.4	15.3	1.2	67.3	960
	13	100.0	97.8	91.6	83.9	68.9	37.5	8.9	1.5	.3	54.6	960
	16	100.0	99.3	96.1	88.0	75.8	50.5	16.1	3.2	.4	58.5	958
	19	100.0	99.9	98.4	96.5	92.4	85.2	66.5	34.4	4.0	73.5	958
	22	100.0	99.9	99.6	99.4	98.3	94.2	83.6	54.7	11.3	79.7	953
	ALL	100.0	99.5	97.9	95.3	90.2	79.4	60.9	39.1	9.3	72.8	7673
OCT	01	100.0	99.6	98.9	98.3	96.8	93.1	83.6	58.7	15.3	90.2	992
	04	100.0	99.9	98.9	97.9	96.1	93.2	85.9	60.9	16.4	81.0	992
	07	100.0	99.6	99.0	97.9	95.6	92.9	85.2	61.9	20.5	81.3	991
	10	100.0	99.5	97.6	95.0	88.1	73.4	43.8	17.6	3.3	67.6	992
	13	100.0	97.2	90.9	81.0	66.7	42.0	14.7	4.3	.8	55.2	992
	16	99.8	98.0	92.0	85.9	72.8	50.6	21.3	6.7	1.0	58.3	991
	19	100.0	99.7	99.1	96.3	90.4	80.5	61.9	30.4	5.0	72.2	991
	22	100.0	99.7	99.3	98.1	95.8	88.0	76.6	46.9	10.3	77.4	991
	ALL	100.0	99.2	97.0	93.8	87.8	76.7	59.1	35.9	9.3	71.7	7932
NOV	01	100.0	99.9	99.4	98.2	96.4	91.2	80.1	51.8	15.3	79.2	960
	04	100.0	99.9	99.3	98.2	96.2	92.2	82.9	54.8	20.3	80.4	959
	07	100.0	100.0	99.5	98.3	96.0	91.7	82.8	56.8	20.6	80.5	959
	10	100.0	99.8	98.4	96.5	91.6	79.2	58.0	28.9	9.0	71.6	960
	13	100.0	99.6	96.1	89.4	74.9	55.2	31.5	13.2	3.4	62.1	960
	16	100.0	99.5	96.8	89.3	76.8	58.1	36.0	16.4	3.6	63.4	960
	19	100.0	100.0	99.1	97.4	92.6	80.2	61.7	33.1	7.4	73.1	960
	22	100.0	99.9	99.4	98.5	96.2	90.3	74.9	44.2	11.9	77.4	960
	ALL	100.0	99.8	98.5	95.7	90.1	79.8	63.5	37.4	11.4	73.5	7678
DEC	01	100.0	99.9	99.6	98.4	96.8	92.4	83.3	60.3	27.5	81.7	992
	04	100.0	100.0	99.7	98.6	96.6	92.6	85.5	62.5	30.4	82.7	992
	07	100.0	99.8	99.3	98.2	96.2	92.7	85.2	62.1	29.5	82.6	992
	10	100.0	99.8	98.7	96.9	92.7	84.9	69.7	42.0	18.6	76.3	992
	13	100.0	99.6	97.2	93.0	84.7	69.9	50.2	23.8	7.2	68.4	992
	16	100.0	99.6	97.3	92.3	83.8	69.0	50.2	24.0	9.0	68.3	990
	19	100.0	99.9	99.0	97.1	93.3	85.7	69.0	43.1	13.8	76.0	990
	22	100.0	99.9	99.4	97.7	94.0	81.1	79.1	52.7	22.2	79.7	990
	ALL	100.0	99.8	98.8	96.5	92.5	84.8	71.5	46.3	19.8	76.9	7930

## 12 - RELATIVE HUMIDITY

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

MONTH HOURS (LST)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN									MEAN RELATIVE HUMIDITY	TOTAL NO. OF OBS.
	10%	20%	30%	40%	50%	60%	70%	80%	90%		
ANN											
01	100.0	99.9	99.6	99.2	98.1	95.1	86.1	58.7	17.9	81.4	11683
04	100.0	99.9	99.6	99.0	97.8	95.2	88.1	63.2	22.1	82.4	11684
07	100.0	99.9	99.5	98.8	97.2	94.0	84.9	57.8	19.1	81.1	11682
10	100.0	99.8	98.7	96.5	91.1	77.7	50.0	22.6	6.9	70.0	11686
13	100.0	99.1	96.1	90.0	76.5	50.5	23.2	9.7	2.7	60.4	11687
16	100.0	99.3	97.2	91.7	80.1	55.5	26.4	10.2	2.9	62.0	11675
19	100.0	99.9	99.2	97.9	94.2	84.8	62.4	30.7	6.4	73.3	11673
22	100.0	99.9	99.6	99.0	97.6	93.3	80.8	48.9	12.9	79.0	11673
ALL	100.0	99.7	98.7	96.5	91.6	80.8	62.7	37.7	11.4	73.7	93443

## 13 - WEATHER CONDITIONS

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

MONTH	HOURS (LST)	ISM	RAIN E/OR DRIZZLE	FREEZE RAIN & FREEZE DRIZZLE	SNOW E/OR SLEET	HAIL	% OF OBS WITH PRECIP	FOG	SMOKE E/OR HAZE	BLOWING SNOW	DUST E/OR SAND	% OBS. W/OBST VISION	TOTAL NO. OF OBS.
JAN	01	.0	10.1	.0	.0	.0	10.1	21.8	12.6	.0	.0	31.1	955
	04	.0	11.3	.0	.0	.0	11.3	26.6	12.0	.0	.0	34.8	955
	07	.1	11.7	.0	.1	.0	11.8	32.0	14.7	.0	.0	41.6	973
	10	.1	10.4	.0	.0	.0	10.4	30.0	27.7	.0	.0	52.1	970
	13	.1	11.4	.0	.0	.0	11.3	17.0	35.1	.0	.0	48.2	964
	16	.4	11.7	.0	.1	.0	11.7	12.7	30.7	.0	.0	41.0	961
	19	.1	13.2	.0	.0	.0	13.2	10.7	13.9	.0	.0	23.0	949
	22	.1	10.8	.0	.0	.0	10.8	16.3	11.8	.0	.0	26.4	955
	ALL	.1	11.3	.0	.0	.0	11.3	20.9	19.9	.0	.0	37.3	7682
FEB	01	.0	9.1	.0	.0	.0	9.1	10.9	3.9	.0	.0	14.3	881
	04	.0	11.3	.0	.1	.0	11.3	16.5	4.8	.0	.0	20.2	884
	07	.2	12.9	.0	.0	.0	12.7	26.3	12.2	.0	.0	35.2	887
	10	.0	10.7	.0	.0	.0	10.7	20.7	21.7	.0	.0	38.6	886
	13	.0	9.9	.0	.0	.0	9.9	9.8	27.6	.0	.0	34.5	885
	16	.1	10.1	.0	.0	.0	10.1	5.1	19.6	.0	.0	24.0	879
	19	.1	10.5	.0	.0	.0	10.5	4.7	7.3	.0	.0	11.3	876
	22	.1	9.5	.0	.0	.0	9.5	5.6	4.8	.0	.0	9.8	876
	ALL	.1	10.5	.0	.0	.0	10.5	12.5	12.7	.0	.0	23.5	7054
MAR	01	.0	10.0	.0	.0	.0	9.9	2.4	1.0	.0	.0	3.0	934
	04	.0	10.5	.0	.0	.0	10.4	4.2	1.5	.0	.0	5.2	936
	07	.0	10.2	.0	.0	.0	10.1	10.1	6.4	.0	.0	15.5	941
	10	.3	7.9	.0	.1	.0	7.8	6.1	13.3	.0	.0	18.4	941
	13	.3	8.8	.0	.0	.0	8.7	3.0	9.3	.0	.0	11.7	938
	16	.1	7.9	.0	.0	.0	7.9	2.2	4.6	.0	.0	6.5	937
	19	.1	10.3	.0	.0	.0	10.3	1.6	2.5	.0	.0	4.1	934
	22	.2	10.5	.0	.0	.1	10.5	2.0	1.0	.0	.0	3.0	932
	ALL	.1	9.5	.0	.0	.0	9.4	4.0	4.9	.0	.0	8.4	7493
APR	01	.0	6.0	.0	.0	.0	6.0	1.5	.5	.0	.0	1.9	934
	04	.1	6.2	.0	.0	.0	6.2	1.3	1.0	.0	.0	2.2	935
	07	.0	7.1	.0	.0	.0	7.1	4.8	6.9	.0	.0	11.3	936
	10	.0	5.6	.0	.0	.0	5.6	2.6	10.1	.0	.0	12.4	935
	13	.1	5.6	.0	.0	.0	5.6	1.0	4.3	.0	.0	5.3	930
	16	.1	4.8	.0	.0	.0	4.8	.9	2.7	.0	.0	3.5	933
	19	.0	4.8	.0	.0	.0	4.8	1.4	3.5	.0	.0	4.6	932
	22	.1	4.4	.0	.0	.0	4.4	1.0	.6	.0	.0	1.5	931
	ALL	.1	5.6	.0	.0	.0	5.6	1.8	3.7	.0	.0	5.4	7466

## 13 - WEATHER CONDITIONS

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

MONTH	HOURS (LST)	ISM	RAIN E/OP DRIZZLE	FREEZE RAIN & FREEZE DRIZZLE	SNOW E/OP SLEET	HAIL	% OF OBS WITH PRECIP	FOG	SMOKE E/OP HAZE	BLOWING SNOW	DUST E/OP SAND	% OBS. W/OBST VISION	TOTAL NO. OF OBS.
MAY	01	.0	3.7	.0	.0	.0	3.7	1.8	1.1	.0	.0	2.9	963
	04	.0	4.0	.0	.0	.0	3.9	2.6	1.3	.0	.0	3.7	965
	07	.0	4.7	.0	.0	.0	4.7	6.8	8.4	.0	.0	14.5	964
	10	.0	2.3	.0	.0	.0	2.3	1.8	8.4	.0	.0	9.8	962
	13	.0	2.0	.0	.0	.0	2.0	.2	3.9	.0	.0	4.1	961
	16	.0	1.9	.0	.0	.0	1.9	.3	2.8	.0	.0	3.1	961
	19	.1	1.8	.0	.0	.0	1.8	1.5	6.0	.0	.0	7.4	962
	22	.1	1.8	.0	.0	.0	1.8	1.5	1.9	.0	.0	3.1	962
	ALL	.0	2.8	.0	.0	.0	2.8	2.1	4.2	.0	.0	6.1	7700
JUN	01	.0	3.4	.0	.0	.0	3.4	2.5	1.1	.0	.0	3.5	934
	04	.0	5.5	.0	.0	.0	5.5	3.6	.7	.0	.0	4.4	937
	07	.0	4.8	.0	.0	.0	4.8	8.7	7.2	.0	.0	15.5	941
	10	.1	2.0	.0	.0	.0	2.0	1.2	7.1	.0	.0	8.1	933
	13	.0	.8	.0	.0	.0	.8	.3	2.8	.0	.0	3.0	931
	16	.0	.8	.0	.0	.0	.8	.3	1.7	.0	.0	2.0	931
	19	.0	.9	.0	.0	.0	.9	2.1	5.2	.0	.0	7.3	935
	22	.0	1.8	.0	.0	.0	1.8	1.7	1.3	.0	.0	3.0	932
	ALL	.0	2.5	.0	.0	.0	2.5	2.6	3.4	.0	.0	5.9	7474
JUL	01	.0	5.2	.0	.0	.0	5.2	4.8	2.6	.0	.0	7.3	966
	04	.0	7.4	.0	.0	.0	7.4	6.5	2.3	.0	.0	8.8	964
	07	.0	6.7	.0	.0	.0	6.7	13.8	10.1	.0	.0	23.4	972
	10	.1	1.3	.0	.0	.0	1.3	3.7	10.2	.0	.0	13.4	970
	13	.0	.4	.0	.0	.0	.4	.3	2.3	.0	.0	2.4	963
	16	.0	.0	.0	.0	.0	.0	.1	2.6	.0	.0	2.6	961
	19	.0	.2	.0	.0	.0	.2	4.0	6.6	.0	.0	10.1	966
	22	.1	1.6	.0	.0	.0	1.6	3.8	3.1	.0	.0	6.7	967
	ALL	.0	2.8	.0	.0	.0	2.8	4.6	5.0	.0	.0	9.4	7729
AUG	01	.1	6.2	.0	.0	.0	6.2	5.2	1.2	.0	.0	6.2	963
	04	.2	7.1	.0	.0	.0	7.1	7.6	.9	.0	.0	8.2	964
	07	.2	6.0	.0	.0	.0	6.0	14.8	8.1	.0	.0	22.1	964
	10	.1	1.5	.0	.0	.0	1.5	2.9	12.3	.0	.0	15.0	963
	13	.1	.4	.0	.0	.0	.4	.1	3.3	.0	.0	3.4	961
	16	.1	1.0	.0	.0	.0	1.0	.4	3.0	.0	.0	3.4	961
	19	.1	1.2	.0	.0	.0	1.2	4.0	6.7	.0	.0	10.3	964



## 13 - WEATHER CONDITIONS

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

MONTH	HOURS (LST)	ISM	RAIN E/OR DRIZZLE	FREEZE RAIN E FREEZE DRIZZLE	SNOW E/OR SLEET	HAIL	% OF OBS WITH PRECIP	FOG	SMOKE E/OR HAZE	BLOWING SNOW	DUST E/OR SAND	% OBS. W/OBST VISION	TOTAL NO. OF OBS.
SEP	01	.0	3.6	.0	.0	.0	3.6	4.0	1.2	.0	.0	4.9	934
	04	.0	5.7	.0	.0	.0	5.7	6.3	1.6	.0	.0	7.6	932
	07	.0	3.9	.0	.0	.0	3.9	14.0	11.3	.0	.0	24.1	938
	10	.0	2.2	.0	.0	.0	2.2	5.7	21.1	.0	.0	26.0	935
	13	.0	1.4	.0	.0	.0	1.4	.6	13.5	.0	.0	13.9	932
	16	.1	1.4	.0	.0	.0	1.4	.6	10.0	.0	.0	10.5	929
	19	.0	1.4	.0	.0	.0	1.4	3.4	5.5	.0	.0	8.5	931
	22	.0	2.0	.0	.0	.0	1.9	2.9	2.7	.0	.0	5.4	931
	ALL	.0	2.7	.0	.0	.0	2.7	4.7	8.4	.0	.0	12.6	7462
OCT	01	.0	3.3	.0	.0	.0	3.3	6.1	5.6	.0	.0	10.9	935
	04	.0	4.5	.0	.0	.0	4.4	9.7	5.1	.0	.0	13.7	936
	07	.0	4.8	.0	.0	.0	4.8	16.7	16.2	.0	.0	31.3	946
	10	.0	3.4	.0	.0	.0	3.4	11.5	31.2	.0	.0	40.4	941
	13	.1	3.3	.0	.0	.0	3.3	3.5	26.1	.0	.0	28.7	936
	16	.1	2.5	.0	.0	.0	2.5	1.8	18.5	.0	.0	19.9	934
	19	.0	3.4	.0	.0	.0	3.4	2.6	9.1	.0	.0	11.0	935
	22	.1	3.9	.0	.0	.0	3.9	4.1	5.4	.0	.0	9.0	933
	ALL	.0	3.6	.0	.0	.0	3.6	7.0	14.7	.0	.0	20.7	7496
NOV	01	.1	7.3	.0	.0	.0	7.1	11.0	11.1	.0	.0	19.9	910
	04	.0	9.5	.0	.0	.0	9.5	15.3	11.1	.0	.0	24.3	915
	07	.0	9.3	.0	.0	.0	9.2	24.4	23.2	.0	.0	42.9	917
	10	.0	8.6	.0	.0	.0	8.6	16.8	34.4	.0	.0	47.2	914
	13	.0	8.1	.0	.0	.0	8.1	8.3	36.1	.0	.0	42.9	914
	16	.0	8.4	.0	.0	.0	8.4	6.0	26.7	.0	.0	31.9	914
	19	.0	8.5	.0	.0	.0	8.5	4.3	11.1	.0	.0	14.9	909
	22	.0	8.4	.0	.0	.0	8.4	6.0	10.1	.0	.0	14.8	912
	ALL	.0	8.5	.0	.0	.0	8.5	11.5	20.5	.0	.0	29.9	7305
DEC	01	.1	9.8	.0	.0	.0	9.8	24.1	13.6	.0	.1	35.0	947
	04	.1	11.8	.0	.0	.0	11.5	28.0	13.7	.0	.1	38.4	947
	07	.1	12.4	.0	.0	.0	12.4	33.1	18.7	.0	.0	47.3	957
	10	.1	9.9	.0	.0	.0	9.9	28.9	31.2	.0	.0	55.0	953
	13	.0	9.2	.0	.0	.0	9.2	17.2	37.9	.0	.0	51.4	949
	16	.1	9.8	.0	.0	.1	9.9	13.4	34.4	.0	.1	45.6	950
	19	.1	9.4	.0	.0	.0	9.7	13.5	15.2	.0	.1	27.0	945
	22	.2	9.8	.0	.0	.0	9.4	16.3	13.9	.0	.1	29.7	943
	ALL	.1	10.3	.0	.0	.0	10.2	22.1	22.4	.0	.1	41.2	7591

# 13 - WEATHER CONDITIONS

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

## PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS (FROM HOURLY OBSERVATIONS)

MONTH	HOURS (LST)	ISM	RAIN E/OP DRIZZLE	FREEZE RAIN & FREEZE DRIZZLE	SNOW E/OP SLEET	HAIL	% OF OBS WITH PRECIP	FOG	SMOKE E/OP HAZE	BLOWING SNOW	DUST E/OP SAND	% OBS W/OBST VISION	TOTAL NO. OF OBS.
JAN	ALL	.1	11.3	.0	.0*	.0	11.3	20.9	19.9	.0	.0	37.3	7682
FEB	ALL	.1	10.5	.0	.0*	.0	10.5	12.5	12.7	.0	.0	23.5	7054
MAR	ALL	.1	9.5	.0	.0*	.0*	9.4	4.0	4.9	.0	.0	8.4	7493
APR	ALL	.1	5.6	.0	.0	.0	5.6	1.8	3.7	.0	.0	5.4	7466
MAY	ALL	.0*	2.8	.0	.0	.0	2.8	2.1	4.2	.0	.0	6.1	7700
JUN	ALL	.0*	2.5	.0	.0	.0	2.5	2.6	3.4	.0	.0	5.9	7474
JUL	ALL	.0*	2.8	.0	.0	.0	2.8	4.6	5.0	.0	.0	9.4	7729
AUG	ALL	.1	3.3	.0	.0	.0	3.3	4.8	4.6	.0	.0	9.2	7702
SEP	ALL	.0*	2.7	.0	.0	.0	2.7	4.7	8.4	.0	.0	12.6	7462
OCT	ALL	.0*	3.6	.0	.0	.0	3.6	7.0	14.7	.0	.0	20.7	7496
NOV	ALL	.0*	8.5	.0	.0	.0	8.5	11.5	20.5	.0	.0	29.9	7305
DEC	ALL	.1	10.3	.0	.0	.0*	10.2	22.1	22.4	.0	.1	41.2	7591
TOTALS		.1	6.1	.0	.0*	.0*	6.1	8.2	10.3	.0	.0*	17.4	90154

14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
VERSUS  
WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JAN

WIND DIR.	RAIN	RAIN SHOWRS	DRIZZLE	FREEZE RAIN FREEZE	SLEET " SHOWRS ICE	SNOW " GRAINS " PELLET	HAIL SMALL HAIL	THUNDER TORNADO SQUALLS	FOG	ICE FOG GROUND FOG	SMOKE HAZE	BLOWING SNOW	BLOWING SAND DUST	NO WEATHER
N	2.1	.3	.8	.0	.0	.0	.0	.0	15.0	10.1	22.5	.0	.0	54.9
NNE	4.4	.6	1.1	.0	.0	.0	.0	.0	17.8	8.3	20.6	.0	.0	54.4
NE	8.1	2.0	.0	.0	.0	.0	.0	.7	8.1	4.7	13.4	.0	.0	65.8
ENE	5.7	.8	.0	.0	.0	.0	.0	.0	8.9	1.6	6.5	.0	.0	74.8
E	7.8	2.4	1.7	.0	.0	.3	.0	.0	12.2	2.7	12.9	.0	.0	64.1
ESE	14.5	2.1	1.4	.0	.0	.2	.0	.2	9.5	5.7	13.3	.0	.0	59.2
SE	22.7	4.3	1.1	.0	.0	.0	.0	.3	13.4	3.9	11.3	.0	.0	50.1
SSE	20.2	5.4	1.9	.0	.0	.0	.0	.0	15.2	5.4	11.5	.0	.0	49.2
S	15.6	6.7	2.1	.0	.0	.0	.0	.2	12.4	3.6	16.4	.0	.0	48.3
SSW	12.8	7.8	.9	.0	.0	.0	.0	.0	6.4	4.1	16.9	.0	.0	53.0
SW	8.0	10.1	1.6	.0	.0	.0	.0	1.6	11.2	4.8	18.6	.0	.0	50.5
WSW	5.7	3.1	1.0	.0	.0	.0	.0	.5	12.5	1.0	12.5	.0	.0	65.1
W	2.6	3.1	1.0	.0	.0	.0	.0	.0	6.0	3.1	16.2	.0	.0	68.1
WNW	2.8	1.7	.0	.0	.0	.0	.0	.0	8.8	4.2	20.7	.0	.0	62.6
NW	1.8	.6	.4	.0	.0	.0	.0	.0	16.6	4.5	29.2	.0	.0	47.6
NNW	1.7	.3	.4	.0	.0	.0	.0	.0	21.2	6.7	29.2	.0	.0	43.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	2.4	.8	.7	.0	.0	.0	.0	.0	20.2	7.2	18.7	.0	.0	53.0
TOTALS	602	193	74	0	0	2	0	9	1165	443	1525	0	0	4241
% TOTAL	7.6	2.4	.9	.0	.0	.0*	.0	.1	14.7	5.6	19.2	.0	.0	53.4

TOTAL NUMBER OF OBSERVATIONS : 7935

NOTES :  
\* = PERCENT < .05

14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
VERSUS  
WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : FEB

WIND DIR.	RAIN	RAIN SHOWRS	DRIZZLE	FREEZE RAIN FREEZE	SLEET " SHOWRS ICE	SNOW " GRAINS " PELLET	HAIL SMALL HAIL	THUNDER TORNADO SQUALLS	FUG	ICE FOG GROUND FOG	SMOKE HAZE	BLOWING SNOW	BLOWING SAND DUST	NO WEATHER
N	.9	.2	.8	.0	.0	.0	.0	.0	9.2	4.3	13.7	.0	.0	73.0
NNE	2.4	.0	.0	.0	.0	.0	.0	.0	5.5	6.7	9.7	.0	.0	77.6
NE	1.2	1.2	1.2	.0	.0	.0	.0	.0	5.9	7.1	5.9	.0	.0	78.8
ENE	3.4	3.4	.0	.0	.0	1.7	.0	.0	3.4	3.4	3.4	.0	.0	81.0
E	7.6	4.2	1.7	.0	.0	.0	.0	.0	5.9	4.2	11.0	.0	.0	67.4
ESE	10.8	3.7	1.2	.0	.0	.0	.0	.0	7.7	3.1	5.6	.0	.0	71.8
SE	23.3	6.7	2.2	.0	.0	.0	.0	.2	10.1	3.0	6.7	.0	.0	54.7
SSE	20.1	8.2	3.0	.0	.0	.0	.0	.2	12.9	2.1	6.8	.0	.0	55.1
S	13.2	5.2	2.7	.0	.0	.0	.0	.0	10.3	2.7	13.8	.0	.0	58.3
SSW	12.5	5.7	2.7	.0	.0	.0	.0	.4	12.2	1.5	12.2	.0	.0	62.4
SW	5.3	5.3	.4	.0	.0	.0	.0	.0	7.8	1.2	12.7	.0	.0	70.1
WSW	4.9	3.8	.3	.0	.0	.0	.0	.7	5.9	1.4	10.8	.0	.0	72.6
W	1.9	2.2	.9	.0	.0	.0	.0	.0	4.2	.6	10.8	.0	.0	78.0
WNW	1.5	1.5	.6	.0	.0	.0	.0	.0	5.0	1.7	15.4	.0	.0	74.5
NW	.8	.3	.0	.0	.0	.0	.0	.0	7.7	2.9	19.3	.0	.0	70.3
NNW	.8	.5	.9	.0	.0	.0	.0	.0	10.0	5.4	17.5	.0	.0	63.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	2.9	.2	.8	.0	.0	.0	.0	.0	15.7	4.8	13.1	.0	.0	63.6
TOTALS	462	194	85	.0	.0	1	0	5	654	226	898	.0	.0	4877
% TOTAL	6.4	2.7	1.2	.0	.0	.0*	.0	.1	9.0	3.1	12.4	.0	.0	67.5

TOTAL NUMBER OF OBSERVATIONS : 7227

NOTES :  
\* = PERCENT < .05

14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
VERSUS  
WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

D23239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : MAR

WIND DIR.	RAIN	RAIN SHOWRS	DRIZZLE	FREEZE RAIN	SLEET " SHOWRS	SNOW " GRAINS " PELLET	HAIL SMALL TORNADO HAIL SQUALLS	FUG	ICE FOG GROUND FOG	SMOKE HAZE	BLOWING SNOW	BLOWING SAND DUST	NO WEATHER
N	.9	1.1	.2	.0	.0	.0	.0	2.2	.4	3.3	.0	.0	86.0
NNE	2.2	2.2	1.5	.0	.0	.0	.0	3.7	.7	2.2	.0	.0	86.8
NE	9.6	.0	.0	.0	.0	.0	.0	4.1	.0	.0	.0	.0	79.5
ENE	7.5	7.5	1.9	.0	.0	.0	.0	5.7	1.9	3.8	.0	.0	69.8
E	5.5	2.8	.9	.0	.0	.0	.0	2.8	.0	1.4	.0	.0	84.4
ESE	12.5	5.1	1.9	.0	.0	.0	.0	6.1	1.6	3.2	.0	.0	70.5
SE	15.7	7.8	2.1	.0	.0	.0	.0	4.3	.5	5.0	.0	.0	66.3
SSE	18.4	7.3	2.9	.0	.0	.0	.0	7.3	.6	6.1	.0	.0	62.0
S	13.5	9.7	1.8	.0	.0	.0	.0	5.3	.6	4.6	.0	.0	63.4
SSW	7.8	6.5	2.0	.0	.0	.0	.0	3.7	.0	3.4	.0	.0	73.8
SW	4.4	4.1	2.1	.0	.0	.0	.0	3.9	.5	5.4	.0	.0	75.8
WSW	2.7	3.8	1.3	.0	.0	.0	.0	2.4	.4	5.1	.0	.0	76.9
W	1.9	1.3	.6	.0	.0	.0	.1	1.8	.1	4.1	.0	.0	84.7
WNW	.8	1.8	.2	.0	.0	.0	.0	1.4	.2	4.0	.0	.0	87.2
NW	.6	.6	.2	.0	.0	.0	.0	2.1	.5	6.8	.0	.0	84.4
NNW	1.3	1.1	.2	.0	.0	.2	.0	2.4	1.1	6.5	.0	.0	83.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	1.6	2.2	1.1	.0	.0	.0	.0	5.9	2.2	6.0	.0	.0	78.1
TOTALS	377	255	80	0	0	1	1	253	45	370	0	0	6278
% TOTAL	4.8	3.2	1.0	.0	.0	.0*	.0*	3.2	.6	4.7	.0	.0	79.1

TOTAL NUMBER OF OBSERVATIONS : 7934

NOTES :  
\* = PERCENT < .05

14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
VERSUS  
WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : APR

WIND DIR.	RAIN	RAIN SHOWERS	DRIZZLE	FREEZE RAIN	SLEET " SHOWRS	SNOW " GRAINS " PELLET	HAIL SMALL HAIL	THUNDER TORNADO SQUALLS	FOG	ICE FOG GROUND FOG	SMOKE HAZE	BLOWING SNOW	BLOWING SAND DUST	NO WEATHER
N	.0	.3	.0	.0	.0	.0	.0	.0	.3	.0	4.5	.0	.0	91.2
NNE	2.7	1.4	.0	.0	.0	.0	.0	.0	1.4	.0	.0	.0	.0	93.2
NE	2.1	.0	.0	.0	.0	.0	.0	.0	2.1	.0	10.6	.0	.0	85.1
ENE	.0	3.6	.0	.0	.0	.0	.0	.0	.0	.0	3.6	.0	.0	89.3
E	2.9	2.9	.0	.0	.0	.0	.0	.0	.7	.0	2.2	.0	.0	91.3
ESE	4.5	3.5	1.0	.0	.0	.0	.0	.5	2.5	.0	2.0	.0	.0	87.6
SE	12.9	5.6	.9	.0	.0	.0	.0	.0	2.1	.0	3.4	.0	.0	77.7
SSE	11.5	9.4	1.6	.0	.0	.0	.0	.4	4.5	.0	3.3	.0	.0	74.2
S	6.8	8.8	1.3	.0	.0	.0	.0	.0	2.5	.0	5.3	.0	.0	76.1
SSW	5.4	6.3	.9	.0	.0	.0	.0	.6	3.9	.0	4.5	.0	.0	80.1
SW	3.3	4.0	.9	.0	.0	.0	.0	.0	2.0	.2	3.1	.0	.0	85.5
WSW	1.4	2.2	1.1	.0	.0	.0	.0	.0	2.8	.0	4.0	.0	.0	87.0
W	.7	1.2	.6	.0	.0	.0	.0	.0	1.2	.1	2.5	.0	.0	90.2
WNW	.7	1.0	.2	.0	.0	.0	.0	.0	1.2	.2	2.7	.0	.0	92.0
NW	.7	1.2	.2	.0	.0	.0	.0	.0	.9	.0	6.3	.0	.0	88.6
NNW	1.8	.8	.0	.0	.0	.0	.0	.0	.5	.0	3.6	.0	.0	89.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	1.5	.7	.0	.0	.0	.0	.0	.0	1.5	.0	5.3	.0	.0	87.3
TOTALS	183	182	43	.0	.0	.0	.0	4	129	5	277	.0	.0	621.4
% TOTAL	2.4	2.5	.6	.0	.0	.0	.0	.1	1.7	.1	3.6	.0	.0	87.4

TOTAL NUMBER OF OBSERVATIONS : 7680

NOTES :  
\* = PERCENT < .05

14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
VERSUS  
WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : MAY

WIND DIR.	RAIN	RAIN SHOWRS	DRIZZLE	FREEZE RAIN FREEZE	SLEET " SHOWRS ICE	SNOW " GRAINS " PELLET	HAIL SMALL HAIL	THUNDER TORNADO SQUALLS	FGG	ICE FOG GROUND FOG	SMOKE HAZE	BLOWING SNOW	BLOWING SAND DUST	NO WEATHER
N	1.2	.0	.6	.0	.0	.0	.0	.0	1.2	.6	3.5	.0	.0	92.4
NNE	.0	.0	.0	.0	.0	.0	.0	.0	2.9	.0	2.9	.0	.0	94.3
NF	5.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	93.3
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.1	.0	.0	90.9
ESE	3.7	1.9	.0	.0	.0	.0	.0	.0	.0	1.9	3.7	.0	.0	90.7
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	.0	.0	98.7
SSE	.9	2.6	.0	.0	.0	.0	.0	.0	.0	.0	6.1	.0	.0	88.6
S	2.7	.0	1.6	.0	.0	.0	.0	.0	.9	.0	1.8	.0	.0	89.4
SSW	3.5	2.7	2.1	.0	.0	.0	.0	.0	2.7	.0	3.8	.0	.0	85.8
SW	2.6	2.0	1.2	.0	.0	.0	.0	.0	3.5	.3	4.6	.0	.0	83.9
WSW	1.6	1.7	2.4	.0	.0	.0	.0	.1	3.9	.1	5.7	.0	.0	83.6
W	.4	.8	2.7	.0	.0	.0	.0	.0	2.7	.3	4.3	.0	.0	85.8
WNW	.5	.2	1.2	.0	.0	.0	.0	.0*	1.6	.1	3.3	.0	.0	89.7
NW	.2	.2	.5	.0	.0	.0	.0	.0	.8	.0	3.6	.0	.0	94.5
NNW	1.2	.5	.0	.0	.0	.0	.0	.0	.7	.0	5.6	.0	.0	91.3
VAP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.7	.0	.0	92.5
CLW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOTALS	67	47	99	0	0	0	0	2	148	10	326	0	0	7060
% TOTAL	.8	.6	1.2	.0	.0	.0	.0	.0*	1.9	.1	4.1	.0	.0	89.0

TOTAL NUMBER OF OBSERVATIONS : 7935

NOTES :  
# = PERCENT < .05

14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
VERSUS  
WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JUN

WIND DIR.	RAIN	RAIN SHOWERS	DRIZZLE	FREEZE RAIN FREEZE	SLEET " SHOWERS ICE	SNOW " GRAINS " PELLET	HAIL SMALL HAIL	THUNDER TORNADO SQUALLS	FUG	ICE FOG GROUND FOG	SMOKE HAZE	BLOWING SNOW	BLOWING SAND DUST	NO WEATHER
N	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.0	.0	.0	94.9
NNE	.0	.0	.0	.0	.0	.0	.0	.0	3.4	.0	3.4	.0	.0	89.7
NNE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	6.1	.0	.0	.0	.0	.0	.0	.0	3.0	.0	.0	.0	.0	93.9
ESE	3.2	.0	.0	.0	.0	.0	.0	.0	1.6	.0	1.6	.0	.0	95.2
SE	3.3	1.7	.0	.0	.0	.0	.0	.0	3.3	.0	5.0	.0	.0	86.7
SSE	2.1	2.1	.0	.0	.0	.0	.0	.0	2.1	.0	3.1	.0	.0	89.6
S	1.3	.8	.0	.0	.0	.0	.0	.0	3.0	.0	3.4	.0	.0	89.5
SSW	.4	1.1	2.1	.0	.0	.0	.0	.0	3.8	.0	4.2	.0	.0	89.0
SW	.3	.6	3.3	.0	.0	.0	.0	.0	3.2	.0	4.4	.0	.0	88.1
WSW	.2	.2	2.9	.0	.0	.0	.0	.0	2.7	.0	3.6	.0	.0	89.0
W	.2	.1	1.6	.0	.0	.0	.0	.0	2.0	.0	2.2	.0	.0	90.8
WNW	.1	.1	.9	.0	.0	.0	.0	.0	2.1	.0	3.7	.0	.0	90.6
NW	.0	.3	.7	.0	.0	.0	.0	.0	1.0	.0	8.8	.0	.0	85.6
NNW	.7	.0	.7	.0	.0	.0	.0	.0	2.0	.0	5.3	.0	.0	88.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.8	.0	.3	.0	.0	.0	.0	.0	4.5	.0	3.9	.0	.0	88.9
TOTALS	20	20	137	0	0	0	0	1	145	7	254	0	0	6902
% TOTAL	.4	.3	1.8	.0	.0	.0	.0	.0*	2.4	.1	3.3	.0	.0	89.9

TOTAL NUMBER OF OBSERVATIONS : 7680

NOTES : \* = PERCENT < .05



14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
VERSUS  
WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JUL

WIND DIR.	RAIN	RAINF SHOWERS	DRIZZLE	FREEZE RAIN FREEZE	SLEET " SHOWERS ICE	SNOW " GRAINS " PELLET	HAIL SMALL HAIL	THUNDER TORNA DO SQUALLS	FUG	ICE FOG GROUND FOG	SMOKE HAZE	BLOWING SNOW	BLOWING SAND DUST	NO WEATHER
N	.0	.0	.0	.0	.0	.0	.0	.0	1.4	.0	7.0	.0	.0	90.1
NNE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
ESE	.0	.0	3.3	.0	.0	.0	.0	.0	3.3	.0	.0	.0	.0	96.7
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	96.6
SSE	.0	5.3	.0	.0	.0	.0	.0	2.6	5.3	.0	2.6	.0	.0	86.8
S	.0	1.6	.8	.0	.0	.0	.0	.0	4.7	.8	5.5	.0	.0	85.2
SSW	.0	.0	6.6	.0	.0	.0	.0	.0	7.5	.0	8.4	.0	.0	78.3
SW	.0	.2	5.6	.0	.0	.0	.0	.0	6.6	.5	7.2	.0	.0	82.0
WSW	.2	.0	3.8	.0	.0	.0	.0	.0	5.7	.3	5.4	.0	.0	83.8
W	.1	.2	2.1	.0	.0	.0	.0	.0	3.5	.1	3.8	.0	.0	87.9
WNW	.0	.3	.8	.0	.0	.0	.0	.0	2.6	.3	4.1	.0	.0	90.6
NW	.0	.5	.8	.0	.0	.0	.0	.0	2.2	.0	7.5	.0	.0	86.9
NNW	.0	.7	.0	.0	.0	.0	.0	.7	2.9	.0	2.9	.0	.0	91.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.3	.0	.0	.0	.0	.0	8.2	.0	5.6	.0	.0	81.2
TOTALS	5	18	197	0	0	0	0	2	342	17	384	0	0	6858
% TOTAL	.1	.2	2.5	.0	.0	.0	.0	.0*	4.3	.2	4.8	.0	.0	86.4

TOTAL NUMBER OF OBSERVATIONS : 7934

NOTES : \* = PERCENT < .05

14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
VERSUS  
WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : AUG

WIND DIR.	RAIN	RAIN SHOWRS	DRIZZLE	FREEZE RAIN	SLEET " SHOWRS	SNOW " GRAINS " PELLET	HAIL SMALL HAIL	THUNDER TOPNADO SQUALLS	FOG	ICE FOG GROUND FOG	SMOKE HAZE	BLOWING SNOW	BLOWING SAND DUST	NO WEATHER
N	4.5	3.0	1.5	.0	.0	.0	.0	.0	4.5	1.5	4.5	.0	.0	83.3
NNE	6.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.5	.0	.0	81.3
NE	.0	7.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	92.3
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	.0	.0	.0	.0	.0	.0	.0	4.5	.0	.0	.0	.0	90.9
ESE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.6	.0	.0	89.7
SE	4.5	.0	.0	.0	.0	.0	.0	.0	2.3	.0	2.3	.0	.0	88.6
SSE	.0	.0	2.0	.0	.0	.0	.0	.0	4.1	.0	6.1	.0	.0	87.8
S	2.3	.6	1.1	.0	.0	.0	.0	.6	3.4	1.1	8.6	.0	.0	80.5
SSW	.8	.0	5.5	.0	.0	.0	.0	.0	5.1	.0	7.8	.0	.0	79.6
SW	.1	.0	6.1	.0	.0	.0	.0	.0	6.5	.4	6.5	.0	.0	79.5
WSW	.2	.0	5.0	.0	.0	.0	.0	.0	6.2	.2	4.8	.0	.0	83.3
W	.2	.2	2.0	.0	.0	.0	.0	.1	3.9	.2	3.4	.0	.0	87.5
WNW	.0	.0	1.4	.0	.0	.0	.0	.1	3.1	.3	3.8	.0	.0	90.8
NW	.3	.6	.3	.0	.0	.0	.0	.3	1.8	.3	7.3	.0	.0	88.3
NNW	.8	.0	.0	.0	.0	.0	.0	.0	3.1	.8	7.8	.0	.0	86.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.8	.3	.3	.0	.0	.0	.0	.3	6.2	.0	3.6	.0	.0	84.6
TOTALS	29	13	21.5	0	0	0	0	9	35.1	21	35.8	0	0	681.3
% TOTAL	.4	.2	2.7	.0	.0	.0	.0	.1	4.4	.3	4.5	.0	.0	85.8

TOTAL NUMBER OF OBSERVATIONS : 7936

NOTES :  
\* = PERCENT < .05

14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
VERSUS  
WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

C23239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : SEP

WIND DIR.	RAIN	RAIN SHOWRS	DRIZZLE	FREEZE RAIN FREEZE	SLEET " SHOWRS ICE	SNOW " GRAINS " PELLET	HAIL SMALL HAIL	THUNDER TORNADO SQUALLS	FOG	ICE FOG GROUND FOG	SMOKE HAZE	BLOWING SNOW	BLOWING SAND DUST	NO WEATHER
N	.0	.0	.0	.0	.0	.0	.0	.0	3.6	.4	7.3	.0	.0	87.1
NNE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.4	.0	.0	84.9
NE	.0	3.3	.0	.0	.0	.0	.0	.0	.0	.0	6.7	.0	.0	86.7
ENE	16.7	.0	.0	.0	.0	.0	.0	.0	5.6	.0	5.6	.0	.0	77.8
E	.0	1.3	2.6	.0	.0	.0	.0	.0	2.6	.0	5.1	.0	.0	98.5
ESE	.0	.0	.9	.0	.0	.0	.0	.0	2.7	.0	4.5	.0	.0	85.7
SE	5.8	1.9	3.9	.0	.0	.0	.0	.0	4.9	1.0	10.7	.0	.0	72.8
SSE	7.1	2.4	2.4	.0	.0	.0	.0	.0	5.9	.0	7.1	.0	.0	81.2
S	5.2	2.9	2.4	.0	.0	.0	.0	.0	4.8	.5	13.3	.0	.0	72.4
SSW	.4	1.3	3.5	.0	.0	.0	.0	.0	4.3	.0	6.1	.0	.0	81.4
SW	.4	.4	4.7	.0	.0	.0	.0	.0	5.5	.4	6.8	.0	.0	80.0
WSW	.3	.3	3.0	.0	.0	.0	.0	.0	5.1	.1	8.0	.0	.0	81.7
W	.1	.3	1.6	.0	.0	.0	.0	.0*	3.5	.3	6.3	.0	.0	86.3
WNW	.0	.4	.6	.0	.0	.0	.0	.0	5.0	.0	10.4	.0	.0	81.3
NW	.0	.2	.2	.0	.0	.0	.0	.0	3.7	.2	14.9	.0	.0	79.9
NNW	.4	.4	.4	.0	.0	.0	.0	.0	2.2	.4	14.8	.0	.0	80.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.1	.4	.8	.0	.0	.0	.0	.0	6.7	.7	6.3	.0	.0	85.0
TOTALS	38	36	129	0	0	0	0	1	331	20	624	0	0	6393
% TOTAL	.5	.5	1.7	.0	.0	.0	.0	.0*	4.3	.3	8.1	.0	.0	83.3

TOTAL NUMBER OF OBSERVATIONS : 7677

NOTES :  
\* = PERCENT < .05

14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
VERSUS  
WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : OCT

WIND DIR.	RAIN	RAIN SHOWERS	DRIZZLE	FREEZE RAIN FREEZE	SLEET " SHOWERS ICE	SNOW " GRAINS " PELLET	HAIL SMALL HAIL	THUNDER TORNA DO	FUG	ICE FOG GROUND FOG	SMOKE HAZE	BLOWING SNOW	BLOWING SAND DUST	NO WEATHER
N	.2	.4	.0	.0	.0	.0	.0	.0	4.0	1.2	11.4	.0	.0	79.4
NNE	.0	.0	.0	.0	.0	.0	.0	.0	1.4	.7	4.8	.0	.0	89.1
NE	.0	1.0	1.0	.0	.0	.0	.0	.0	3.0	1.0	8.1	.0	.0	81.8
ENE	.0	2.0	.0	.0	.0	.0	.0	.0	4.1	.0	4.1	.0	.0	85.7
E	5.0	1.7	.6	.0	.0	.0	.0	.0	3.9	.6	6.1	.0	.0	77.7
ESE	5.2	1.7	.7	.0	.0	.0	.0	.0	4.1	1.0	5.5	.0	.0	79.0
SE	12.4	2.5	1.2	.0	.0	.0	.0	.0	9.1	1.2	6.2	.0	.0	71.1
SSE	10.4	3.8	1.6	.0	.0	.0	.0	.0	6.0	.0	13.2	.0	.0	64.3
S	7.7	5.9	.9	.0	.0	.0	.0	.0	8.0	.6	13.0	.0	.0	64.7
SSW	2.3	4.6	.5	.0	.0	.0	.0	.5	5.5	.5	12.8	.0	.0	71.7
SW	3.0	2.2	.8	.0	.0	.0	.0	.0	7.2	.6	10.5	.0	.0	71.5
WSW	1.0	.9	1.4	.0	.0	.0	.0	.0	6.4	.5	12.1	.0	.0	70.3
W	.5	.4	.5	.0	.0	.0	.0	.1	4.9	.2	13.2	.0	.0	75.7
WNW	.4	.1	.5	.0	.0	.0	.0	.1	5.0	1.4	15.7	.0	.0	74.2
NW	.4	1.1	.4	.0	.0	.0	.0	.0	3.8	.9	25.1	.0	.0	65.5
NNW	.4	.0	.0	.0	.0	.0	.0	.0	4.4	1.0	23.0	.0	.0	68.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.6	.5	.2	.0	.0	.0	.0	.0	9.8	2.1	14.7	.0	.0	67.2
TOTALS	144	86	42	0	0	0	0	3	457	.68	1098	0	0	5755
% TOTAL	1.8	1.1	.5	.0	.0	.0	.0	.0*	5.8	.9	13.8	.0	.0	72.5

TOTAL NUMBER OF OBSERVATIONS : 7935

NOTES :  
# = PERCENT < .05

14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
VERSUS  
WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : NOV

WIND DIR.	RAIN	RAIN SHOWERS	DRIZZLE	FREEZE RAIN	SLEET " SHOWERS	SNOW " GRAINS " PELLET	HAIL SMALL HAIL	THUNDER TORNADO SQUALLS	FOG	ICE FOG GROUND FOG	SMOKE HAZE	BLOWING SNOW	BLOWING SAND DUST	NO WEATHER
N	1.7	.2	.3	.0	.0	.0	.0	.0	6.5	5.3	19.3	.0	.0	66.1
NNE	2.2	.0	.0	.0	.0	.0	.0	.0	6.7	3.4	15.6	.0	.0	69.8
NE	6.0	2.7	.0	.0	.0	.0	.0	.0	4.0	2.7	17.4	.0	.0	68.5
ENE	6.7	.0	.0	.0	.0	.0	.0	.0	4.4	4.4	12.2	.0	.0	71.1
E	5.9	.7	1.0	.0	.0	.0	.0	.0	9.1	2.3	12.4	.0	.0	67.8
ESE	12.7	2.2	1.2	.0	.0	.0	.0	.0	11.8	4.1	11.8	.0	.0	58.8
SE	17.2	2.4	3.3	.0	.0	.0	.0	.0	14.5	2.8	14.8	.0	.0	52.6
SSE	15.7	4.4	2.8	.0	.0	.0	.0	.0	17.0	1.8	14.4	.0	.0	50.3
S	11.0	6.0	3.5	.0	.0	.0	.0	.0	12.2	2.8	23.2	.0	.0	47.4
SSW	7.9	4.4	1.5	.0	.0	.0	.0	.0	7.4	1.0	21.2	.0	.0	55.7
SW	3.5	3.5	2.5	.0	.0	.0	.0	.0	6.0	2.5	20.4	.0	.0	57.7
WSW	4.8	5.1	1.1	.0	.0	.0	.0	.4	7.4	.7	21.3	.0	.0	57.7
W	1.6	2.3	.5	.0	.0	.0	.0	.0	4.4	.8	14.8	.0	.0	72.7
WNW	1.1	1.8	.5	.0	.0	.0	.0	.0	3.7	.7	21.2	.0	.0	68.0
NW	.6	.8	.2	.0	.0	.0	.0	.0	3.9	2.3	28.4	.0	.0	61.9
NNW	1.2	.3	.0	.0	.0	.0	.0	.0	5.3	2.9	24.3	.0	.0	64.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLW	1.5	.2	.4	.0	.0	.0	.0	.0	9.3	4.6	22.3	.7	.0	61.1
TOTALS	401	141	80	0	0	0	0	1	624	219	1496	0	0	4734
% TOTAL	5.2	1.8	1.0	.0	.0	.0	.0	.0*	8.1	2.9	19.5	.0	.0	61.6

TOTAL NUMBER OF OBSERVATIONS : 7679

NOTES :  
\* = PERCENT < .05

14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
VERSUS  
WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

023239 ALAMFDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : DEC

WIND DIR.	RAIN	RAIN SHOWRS	DRIZZLE	FREEZE RAIN FREEZE	SLEET " SHOWRS ICE	SNOW " GRAINS " PELLET	HAIL SMALL HAIL	THUNDER TOPNADO SQUALLS	FOG	ICE FOG GROUND FOG	SMOKE HAZE	BLOWING SNOW	BLOWING SAND DUST	NO WEATHER
N	3.3	.1	1.0	.0	.0	.0	.0	.0	13.8	6.3	18.3	.0	.3	58.5
NNE	4.6	2.0	.5	.0	.0	.0	.0	.0	12.2	3.6	18.4	.0	.0	51.7
NE	9.8	.8	.8	.0	.0	.0	.0	.0	6.8	3.0	12.0	.0	.8	69.2
ENE	1.3	.6	1.3	.0	.0	.0	.0	.0	10.7	3.8	15.7	.0	.0	62.9
E	5.4	.9	.6	.0	.0	.0	.0	.0	11.4	4.7	17.4	.0	.0	59.3
ESE	7.3	2.0	2.3	.0	.0	.0	.0	.3	15.6	4.8	13.6	.0	.0	58.9
SE	17.4	3.4	3.1	.0	.0	.0	.0	.4	16.2	4.2	12.7	.0	.0	48.6
SSE	17.2	3.4	3.0	.0	.0	.0	.0	.0	10.0	4.0	11.2	.0	.0	52.3
S	15.3	3.9	2.0	.0	.0	.0	.0	.2	15.5	3.3	22.9	.0	.0	45.4
SSW	8.5	1.1	4.0	.0	.0	.0	.0	.0	14.2	3.4	18.8	.0	.0	54.5
SW	13.2	2.0	3.3	.0	.0	.0	.0	.0	17.9	3.3	24.5	.0	.0	44.4
WSW	6.0	6.6	4.4	.0	.0	.0	.0	.0	15.9	2.2	19.2	.0	.0	50.0
W	7.0	1.9	1.9	.0	.0	.0	.0	.3	6.7	2.7	22.5	.0	.3	59.0
WNW	.9	3.0	.0	.0	.0	.0	.0	.0	6.3	2.1	24.6	.0	.0	61.4
NW	1.8	.5	1.0	.0	.0	.0	.0	.0	15.0	6.4	32.7	.0	.0	42.4
NNW	2.3	.4	.9	.0	.0	.0	.0	.0	18.7	10.0	27.2	.0	.1	42.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	2.8	.1	1.6	.0	.0	.0	.0	.0	21.1	7.0	24.9	.0	.0	45.3
TOTALS	525	121	134	0	0	0	1	6	1242	434	1697	0	5	4020
% TOTAL	6.6	1.5	1.7	.0	.0	.0	.0*	.1	15.7	5.5	21.4	.0	.1	50.7

TOTAL NUMBER OF OBSERVATIONS : 7933

NOTES :  
\* = PERCENT < .05

14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
VERSUS  
WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : ANN

WIND DIR.	RAIN	RAIN SHOWERS	DRIZZLE	FREEZE RAIN	SLEET " SHOWERS	SNOW " GRAINS " PELLET	HAIL SMALL HAIL	THUNDER TORNADO SQUALLS	FOG	ICE FOG GROUND FOG	SMOKE HAZE	BLOWING SNOW	BLOWING SAND DUST	NO WEATHER
N	1.5	.3	.5	.0	.0	.0	.0	.0*	7.9	4.3	13.8	.0	.0*	71.8
NNE	2.5	.8	.4	.0	.0	.0	.0	.0	7.1	3.4	11.1	.0	.0	74.5
NE	5.4	1.5	.4	.0	.0	.0	.0	.1	4.8	2.7	10.1	.0	.1	75.0
ENE	4.0	1.7	.5	.0	.0	.2	.0	.2	6.7	2.5	8.8	.0	.0	73.6
E	5.6	2.0	1.0	.0	.0	.1	.0	.0	7.0	2.2	9.5	.0	.0	72.7
ESE	9.0	2.5	1.3	.0	.0	.0*	.0	.2	8.1	2.9	8.0	.0	.0	70.2
SE	17.1	4.3	2.1	.0	.0	.0	.0	.2	10.6	2.5	9.6	.0	.0	58.8
SSE	15.3	5.3	2.4	.0	.0	.0	.0	.2	11.8	2.2	9.0	.0	.0	60.1
S	9.9	5.4	2.0	.0	.0	.0	.0	.1	8.1	1.6	12.3	.0	.0	63.6
SSW	5.0	3.5	2.6	.0	.0	.0	.0	.2	6.1	.8	9.2	.0	.0	73.4
SW	2.1	1.8	3.4	.0	.0	.0	.0	.1	5.7	.7	7.9	.0	.0	77.9
WSW	1.1	1.1	2.8	.0	.0	.0	.0	.0*	4.9	.3	6.6	.0	.0	81.2
W	.7	.6	1.4	.0	.0	.0	.0*	.0*	3.0	.3	5.5	.0	.0*	85.7
WNW	.5	.8	.6	.0	.0	.0	.0	.0*	3.2	.6	8.5	.0	.0	84.0
NW	.8	.6	.4	.0	.0	.0	.0	.0*	6.0	2.0	18.0	.0	.0	70.8
NNW	1.3	.4	.4	.0	.0	.0*	.0	.0*	9.7	4.1	19.1	.0	.0*	64.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	1.6	.4	.7	.0	.0	.0	.0	.0*	11.6	3.5	14.3	.0	.0	67.2
TOTALS	2963	1313	1316	.0	.0	.0	2	53	59.1	1516	9307	.0	5	706.5
% TOTAL	3.1	1.4	1.4	.0	.0	.0*	.0*	.1	6.3	1.6	10.0	.0	.0*	75.6

TOTAL NUMBER OF OBSERVATIONS : 93485

NOTES :  
\* = PERCENT < .05

# 15 - MEANS AND STANDARD DEVIATIONS

DRY-BULB TEMPERATURE (DEC F)  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

HOURS (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
MEAN	47.4	50.7	51.6	52.3	53.7	56.2	56.9	57.8	59.4	57.6	53.4	48.7	53.8
S.D.	4.614	3.936	3.512	3.466	3.069	3.190	2.813	2.837	3.681	3.522	3.822	4.814	5.184
TOT OBS	992	904	992	960	991	960	992	992	960	992	960	992	11687
MEAN	46.6	49.7	50.6	51.3	53.0	55.6	56.3	57.3	59.7	56.9	52.4	47.8	53.0
S.D.	4.904	4.117	3.660	3.489	3.037	2.973	2.704	2.807	3.431	3.448	3.996	5.082	5.307
TOT OBS	991	904	992	960	992	960	992	992	960	992	959	992	11686
MEAN	46.0	49.1	50.4	52.6	55.5	58.4	58.4	58.8	59.7	56.8	51.8	47.3	53.7
S.D.	5.083	4.393	3.785	3.605	3.708	4.159	3.465	3.291	3.488	3.476	4.086	5.183	6.125
TOT OBS	992	904	992	960	992	960	992	992	960	992	960	992	11688
MEAN	49.6	53.3	55.6	58.2	61.4	64.4	64.3	64.8	66.6	63.3	56.9	51.1	59.1
S.D.	4.353	3.966	4.056	4.705	4.897	5.621	4.808	4.690	5.307	4.664	4.228	4.430	7.272
TOT OBS	992	904	992	960	992	960	992	992	960	992	960	992	11688
MEAN	53.3	57.5	60.1	62.9	65.8	69.1	69.5	70.3	72.4	68.9	61.2	54.7	63.8
S.D.	4.436	4.491	5.234	6.378	6.323	6.882	5.726	5.337	6.645	6.188	5.429	4.736	8.439
TOT OBS	992	904	992	960	992	960	992	992	960	992	959	992	11687
MEAN	54.1	58.5	60.2	62.1	64.2	67.7	68.5	68.8	70.5	67.6	60.9	54.9	63.2
S.D.	4.686	4.851	5.673	6.389	5.730	6.229	5.043	4.851	6.633	6.500	5.391	4.956	7.761
TOT OBS	992	903	992	960	992	960	992	992	959	992	960	991	11685
MEAN	50.5	54.0	54.9	56.0	58.0	61.4	61.8	61.6	62.8	60.9	56.4	51.3	57.5
S.D.	4.183	3.820	4.146	4.713	4.556	5.310	4.209	4.004	5.159	4.664	3.940	4.408	6.047
TOT OBS	992	902	992	960	992	960	992	992	959	992	960	991	11684
MEAN	48.7	52.2	52.9	53.5	54.9	57.4	57.9	58.8	60.4	58.8	54.6	49.7	55.0
S.D.	4.343	3.652	3.556	3.704	3.376	3.433	3.067	3.102	4.025	3.883	3.690	4.512	5.169
TOT OBS	992	903	991	960	992	960	992	992	959	992	960	991	11684
MEAN	49.5	53.1	54.5	56.1	58.3	61.2	61.7	62.3	63.8	61.4	55.9	50.7	57.4
S.D.	5.363	5.286	5.626	6.325	6.438	6.961	6.405	6.213	7.066	6.494	5.533	5.493	7.659
TOT OBS	7935	7228	7935	7680	7435	7680	7936	7936	7677	7936	7678	7933	93489



## 16 - MEANS AND STANDARD DEVIATIONS

WET-BULB TEMPERATURE (DEC F)  
(FROM HOURLY OBSERVATIONS)023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

HOURS (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
MEAN	44.9	47.8	48.2	48.7	50.4	53.2	54.3	55.4	56.2	54.1	50.0	46.0	50.8
S.D.	5.003	4.477	3.941	3.810	3.113	2.740	2.375	2.384	2.846	3.576	4.452	5.194	5.234
TOT OBS	991	904	992	958	991	960	992	992	960	992	960	992	11684
MEAN	44.3	46.9	47.4	48.0	49.9	52.8	54.0	55.1	55.9	53.5	49.2	45.3	50.2
S.D.	5.289	4.696	4.162	3.865	3.189	2.690	2.411	2.413	2.918	3.657	4.604	5.443	5.442
TOT OBS	990	904	992	959	992	960	992	992	960	992	959	992	11684
MEAN	43.8	46.4	47.2	48.9	51.5	54.6	55.3	56.1	56.5	53.5	48.7	44.8	50.6
S.D.	5.472	4.968	4.276	3.959	3.436	3.085	2.629	2.671	2.939	3.768	4.708	5.510	5.976
TOT OBS	991	904	992	959	992	960	991	992	959	991	959	992	11682
MEAN	46.2	49.1	50.2	51.8	54.3	57.4	58.2	58.9	59.6	56.8	51.9	47.4	53.5
S.D.	4.710	4.435	4.062	4.070	3.555	3.340	2.955	2.879	3.188	3.798	4.418	4.797	5.947
TOT OBS	992	904	992	959	992	960	991	992	960	992	961	992	11687
MEAN	48.2	51.2	52.2	54.0	56.5	59.4	60.4	61.1	61.4	58.7	53.8	49.3	55.5
S.D.	4.489	4.461	4.127	4.418	3.713	3.431	2.984	2.804	3.169	3.818	4.451	4.584	5.961
TOT OBS	992	904	992	959	992	960	992	992	960	992	959	992	11686
MEAN	48.7	51.9	52.6	54.7	56.8	58.8	60.0	60.5	60.8	58.2	53.7	49.4	55.4
S.D.	4.481	4.395	4.124	4.402	3.581	3.272	2.675	2.579	3.089	3.732	4.310	4.659	5.627
TOT OBS	991	903	992	957	992	959	991	991	958	991	960	990	11675
MEAN	46.9	49.8	50.0	50.7	52.7	55.8	56.7	57.2	57.5	55.5	51.7	47.5	52.7
S.D.	4.538	4.188	3.860	3.921	3.284	3.130	2.600	2.574	2.940	3.416	4.187	4.805	5.173
TOT OBS	990	902	992	958	992	959	990	991	958	991	960	990	11673
MEAN	45.9	48.8	48.9	49.4	51.1	53.8	54.8	55.8	56.6	54.7	50.8	46.6	51.4
S.D.	4.733	4.209	3.796	3.741	3.114	2.754	2.437	2.483	2.918	3.460	4.217	5.000	5.053
TOT OBS	990	903	991	958	992	959	990	991	958	991	960	990	11673
MEAN	46.1	49.0	49.6	50.7	52.8	55.7	56.7	57.5	58.1	55.6	51.2	47.0	52.5
S.D.	5.130	4.839	4.478	4.571	4.112	3.889	3.556	3.416	3.840	4.130	4.762	5.255	5.904
TOT OBS	7927	7228	7935	7667	7935	7677	7929	7933	7673	7932	7678	7930	93444

## 17 - MEANS AND STANDARD DEVIATIONS

DEW-POINT TEMPERATURE (DEG F)  
(FROM HOURLY OBSERVATIONS)023232 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

HOURS .LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
MEAN	42.1	44.7	44.7	45.3	47.4	50.8	52.3	53.5	53.8	51.2	46.7	43.0	48.0
S.D.	6.961	6.716	5.926	5.389	4.154	3.235	2.714	2.559	3.698	5.510	6.701	7.309	6.663
TOT OBS	991	904	992	958	991	960	992	992	960	992	960	992	11684
MEAN	41.4	44.0	44.0	44.7	47.1	50.6	52.2	53.4	53.6	50.7	46.1	42.4	47.5
S.D.	7.502	7.082	6.362	5.652	4.309	3.235	2.765	2.551	3.688	5.768	6.867	7.439	6.963
TOT OBS	990	904	992	959	992	960	992	992	960	992	959	992	11684
MEAN	40.9	43.4	43.9	45.2	46.0	51.6	53.0	54.2	54.2	50.7	45.6	41.8	47.7
S.D.	7.616	7.410	6.491	6.020	4.594	3.546	2.828	2.737	3.693	6.041	6.926	7.613	7.400
TOT OBS	991	904	992	959	992	960	991	992	959	991	959	992	11682
MEAN	42.3	44.6	44.9	45.9	48.4	52.2	53.8	54.9	54.7	51.7	47.2	43.3	48.7
S.D.	7.562	7.498	6.935	6.414	4.886	3.816	3.043	2.751	4.245	6.471	7.170	7.591	7.408
TOT OBS	992	904	992	959	992	960	991	992	960	992	960	992	11686
MEAN	42.8	45.1	45.0	46.3	49.1	52.6	54.2	55.1	55.9	50.8	47.1	43.6	48.8
S.D.	7.830	7.959	7.133	6.680	4.778	3.968	3.109	2.818	5.049	7.047	7.412	7.778	7.527
TOT OBS	992	904	992	959	992	960	992	992	960	992	959	992	11686
MEAN	43.0	45.6	45.7	46.6	49.1	52.5	54.1	54.9	54.2	51.1	47.3	43.7	49.0
S.D.	8.008	7.590	6.632	5.942	4.529	3.713	2.989	2.789	4.132	6.622	7.349	7.921	7.247
TOT OBS	992	903	992	958	992	960	992	992	959	992	960	991	11683
MEAN	43.1	45.5	45.2	45.8	48.0	51.5	53.1	54.0	53.6	51.3	47.4	43.5	48.5
S.D.	7.046	6.586	6.125	5.323	4.175	3.370	2.722	2.682	3.893	5.261	6.634	7.429	6.589
TOT OBS	991	902	992	959	992	960	992	992	959	992	960	991	11682
MEAN	42.9	45.4	45.0	45.6	47.7	51.0	52.5	53.7	53.8	51.3	47.2	43.2	48.3
S.D.	6.899	6.271	5.875	5.223	4.133	3.238	2.811	2.689	3.566	5.303	6.395	7.384	6.480
TOT OBS	991	903	991	959	992	960	992	992	959	992	960	991	11692
MEAN	42.3	44.6	44.8	45.7	48.1	51.6	53.1	54.2	54.0	51.1	46.8	43.1	48.3
S.D.	7.470	7.193	6.471	5.876	4.505	3.597	2.977	2.770	4.060	6.040	6.964	7.581	7.063
TOT OBS	7930	7228	7935	7670	7935	7680	7934	7936	7676	7935	7677	7933	93469

## 18 - MEANS AND STANDARD DEVIATIONS

SEA-LEVEL PRESSURE (MB)  
(FROM HOURLY OBSERVATIONS)023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

HOURS (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
MEAN	1019.8	1019.0	1017.8	1017.1	1015.6	1014.1	1014.2	1014.0	1013.5	1016.3	1018.7	1020.0	1016.7
S.D.	5.829	5.883	5.415	4.123	3.217	2.873	2.462	2.472	2.926	3.448	4.982	5.470	4.853
TOT OBS	992	904	992	960	991	960	992	992	960	992	960	992	11687
MEAN	1019.8	1018.6	1017.4	1016.7	1015.3	1013.9	1014.0	1013.8	1013.4	1016.1	1018.5	1019.9	1016.4
S.D.	5.873	5.985	5.453	4.155	3.224	2.893	2.465	2.489	2.919	3.440	5.025	5.533	4.891
TOT OBS	992	904	992	960	992	960	992	992	960	992	960	992	11688
MEAN	1020.0	1019.0	1018.0	1017.5	1016.1	1014.6	1014.9	1014.7	1014.2	1016.8	1019.0	1020.2	1017.1
S.D.	5.935	6.052	5.548	4.203	3.255	2.891	2.483	2.502	2.929	3.477	5.062	5.608	4.840
TOT OBS	992	904	992	960	992	960	992	992	960	992	960	992	11688
MEAN	1021.2	1020.0	1018.9	1018.1	1016.5	1015.1	1015.4	1015.3	1014.9	1017.6	1019.9	1021.4	1017.8
S.D.	5.910	6.107	5.548	4.203	3.294	2.907	2.495	2.506	2.930	3.528	5.123	5.640	4.959
TOT OBS	992	904	992	960	992	960	992	992	960	992	960	992	11688
MEAN	1019.7	1019.0	1018.0	1017.4	1016.0	1014.7	1014.9	1014.7	1013.9	1016.3	1018.5	1019.8	1016.9
S.D.	5.789	5.941	5.380	4.092	3.274	2.922	2.496	2.519	2.925	3.437	5.004	5.483	4.732
TOT OBS	992	904	992	960	992	960	992	992	960	992	959	992	11687
MEAN	1019.0	1017.9	1016.9	1016.4	1015.0	1013.9	1013.9	1013.6	1012.8	1015.4	1017.7	1019.2	1016.0
S.D.	5.744	5.871	5.245	4.003	3.280	2.917	2.500	2.496	2.910	3.421	4.938	5.411	4.718
TOT OBS	992	903	992	960	992	960	992	992	959	992	960	991	11685
MEAN	1019.3	1018.2	1017.0	1016.3	1014.9	1013.7	1013.7	1013.3	1012.8	1015.7	1018.1	1019.5	1016.0
S.D.	5.770	5.851	5.232	3.923	3.178	2.875	2.476	2.475	2.911	3.481	4.957	5.373	4.803
TOT OBS	992	902	992	960	992	960	992	992	959	992	959	991	11683
MEAN	1019.8	1018.8	1017.8	1017.1	1015.7	1014.3	1014.4	1014.1	1013.6	1016.4	1018.7	1020.1	1016.7
S.D.	5.801	5.933	5.277	3.981	3.181	2.860	2.473	2.490	2.919	3.474	5.007	5.392	4.800
TOT OBS	992	903	991	960	992	960	992	992	959	992	960	991	11684
MEAN	1019.8	1018.8	1017.7	1017.1	1015.6	1014.3	1014.4	1014.2	1013.6	1016.3	1018.6	1020.0	1016.7
S.D.	5.861	5.973	5.418	4.126	3.273	2.928	2.537	2.565	2.990	3.519	5.046	5.519	4.857
TOT OBS	7936	7228	7935	7680	7435	7680	7926	7936	7077	7936	7678	7933	93490

# 19 - MEANS AND STANDARD DEVIATIONS

STATION PRESSURE (INCHES OF HG)  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

HOURS (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
01	30.085 S.D. .171 TOT OBS 930	30.063 S.D. .173 TOT OBS 876	30.026 S.D. .159 TOT OBS 930	30.008 S.D. .119 TOT OBS 930	29.963 S.D. .093 TOT OBS 961	29.921 S.D. .081 TOT OBS 930	29.923 S.D. .068 TOT OBS 961	29.919 S.D. .069 TOT OBS 961	29.906 S.D. .082 TOT OBS 930	29.984 S.D. .099 TOT OBS 930	30.056 S.D. .142 TOT OBS 900	30.093 S.D. .159 TOT OBS 930	29.995 S.D. .140 TOT OBS 11169
04	30.084 S.D. .172 TOT OBS 930	30.052 S.D. .175 TOT OBS 876	30.015 S.D. .160 TOT OBS 930	29.997 S.D. .120 TOT OBS 930	29.955 S.D. .093 TOT OBS 961	29.915 S.D. .081 TOT OBS 930	29.919 S.D. .068 TOT OBS 960	29.913 S.D. .069 TOT OBS 961	29.901 S.D. .082 TOT OBS 930	29.978 S.D. .099 TOT OBS 930	30.051 S.D. .143 TOT OBS 900	30.091 S.D. .161 TOT OBS 930	29.988 S.D. .141 TOT OBS 11168
07	30.091 S.D. .174 TOT OBS 930	30.064 S.D. .176 TOT OBS 876	30.032 S.D. .163 TOT OBS 930	30.020 S.D. .122 TOT OBS 930	29.978 S.D. .094 TOT OBS 961	29.937 S.D. .081 TOT OBS 930	29.942 S.D. .069 TOT OBS 961	29.937 S.D. .070 TOT OBS 961	29.924 S.D. .082 TOT OBS 930	29.998 S.D. .100 TOT OBS 930	30.065 S.D. .144 TOT OBS 900	30.092 S.D. .164 TOT OBS 930	30.006 S.D. .140 TOT OBS 11169
10	30.126 S.D. .174 TOT OBS 930	30.091 S.D. .179 TOT OBS 876	30.057 S.D. .163 TOT OBS 930	30.039 S.D. .122 TOT OBS 930	29.990 S.D. .096 TOT OBS 961	29.949 S.D. .082 TOT OBS 930	29.957 S.D. .070 TOT OBS 961	29.953 S.D. .070 TOT OBS 961	29.942 S.D. .083 TOT OBS 930	30.022 S.D. .102 TOT OBS 930	30.092 S.D. .147 TOT OBS 900	30.133 S.D. .165 TOT OBS 930	30.028 S.D. .144 TOT OBS 11169
13	30.082 S.D. .169 TOT OBS 930	30.061 S.D. .174 TOT OBS 876	30.033 S.D. .158 TOT OBS 930	30.018 S.D. .119 TOT OBS 930	29.975 S.D. .094 TOT OBS 961	29.939 S.D. .082 TOT OBS 930	29.944 S.D. .069 TOT OBS 961	29.937 S.D. .070 TOT OBS 961	29.917 S.D. .082 TOT OBS 930	29.985 S.D. .098 TOT OBS 930	30.050 S.D. .143 TOT OBS 900	30.087 S.D. .160 TOT OBS 930	30.002 S.D. .137 TOT OBS 11169
16	30.061 S.D. .168 TOT OBS 930	30.032 S.D. .176 TOT OBS 875	30.000 S.D. .154 TOT OBS 930	29.988 S.D. .115 TOT OBS 929	29.949 S.D. .093 TOT OBS 961	29.916 S.D. .082 TOT OBS 929	29.917 S.D. .069 TOT OBS 960	29.906 S.D. .070 TOT OBS 961	29.886 S.D. .082 TOT OBS 928	29.958 S.D. .097 TOT OBS 929	30.028 S.D. .142 TOT OBS 900	30.068 S.D. .158 TOT OBS 928	29.975 S.D. .136 TOT OBS 11160
19	30.070 S.D. .170 TOT OBS 930	30.040 S.D. .172 TOT OBS 874	30.004 S.D. .153 TOT OBS 930	29.985 S.D. .113 TOT OBS 929	29.944 S.D. .091 TOT OBS 961	29.910 S.D. .080 TOT OBS 929	29.910 S.D. .069 TOT OBS 960	29.899 S.D. .069 TOT OBS 961	29.885 S.D. .082 TOT OBS 928	29.966 S.D. .098 TOT OBS 929	30.038 S.D. .142 TOT OBS 900	30.079 S.D. .156 TOT OBS 928	29.977 S.D. .138 TOT OBS 11159
22	30.086 S.D. .171 TOT OBS 930	30.057 S.D. .174 TOT OBS 875	30.027 S.D. .155 TOT OBS 929	30.009 S.D. .115 TOT OBS 929	29.967 S.D. .092 TOT OBS 961	29.929 S.D. .080 TOT OBS 929	29.929 S.D. .069 TOT OBS 960	29.919 S.D. .070 TOT OBS 961	29.906 S.D. .081 TOT OBS 928	29.986 S.D. .098 TOT OBS 929	30.056 S.D. .143 TOT OBS 900	30.096 S.D. .157 TOT OBS 928	29.996 S.D. .139 TOT OBS 11159
ALL	30.1 S.D. .172 TOT OBS 7440	30.1 S.D. .175 TOT OBS 7004	30.0 S.D. .159 TOT OBS 7439	30.0 S.D. .119 TOT OBS 7437	30.0 S.D. .094 TOT OBS 7688	29.9 S.D. .082 TOT OBS 7437	29.9 S.D. .071 TOT OBS 7614	29.9 S.D. .072 TOT OBS 7688	29.9 S.D. .084 TOT OBS 7434	30.0 S.D. .101 TOT OBS 7437	30.1 S.D. .144 TOT OBS 7200	30.1 S.D. .161 TOT OBS 7434	30.0 S.D. .140 TOT OBS 89322

## 20 - FLYING WEATHER - PERCENT OF HOURS

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986PERCENT OF HOURS WITH  
5000 FEET & VISIBILITY LESS THAN 5.00 MILES

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
01	39	31	30	24	32	39	48	46	34	29	30	43	35	32
04	44	39	34	30	41	46	59	57	44	36	35	46	43	32
07	51	50	38	34	44	50	63	64	51	41	47	54	49	32
10	55	49	37	27	28	34	39	41	39	39	47	54	41	32
13	54	42	28	19	15	12	8	9	13	24	39	50	26	32
16	42	29	21	14	10	9	5	5	7	15	29	44	19	32
19	31	24	22	16	16	18	18	22	15	10	21	30	21	32
22	33	25	24	18	22	27	35	35	24	23	24	36	27	32
ALL	44	36	29	23	26	29	34	35	29	28	34	45	33	32

PERCENT OF HOURS WITH  
3000 FEET & VISIBILITY LESS THAN 3.00 MILES

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
01	25	21	22	19	30	38	48	46	33	25	22	28	30	32
04	30	29	25	24	38	45	59	57	43	33	26	31	37	32
07	35	36	29	27	41	49	63	63	48	36	33	38	42	32
10	36	34	26	20	24	32	37	39	31	28	32	39	31	32
13	31	25	17	12	12	11	8	8	9	13	22	31	17	32
16	25	18	13	8	9	8	4	5	5	8	17	24	12	32
19	20	16	16	11	14	16	17	21	14	12	15	19	16	32
22	22	17	18	14	22	26	35	35	23	19	15	23	22	32
ALL	28	25	21	17	24	28	34	34	26	22	23	29	26	32

PERCENT OF HOURS WITH  
1000 FEET & VISIBILITY LESS THAN 3.00 MILES

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
01	12	8	5	5	12	20	35	34	20	13	8	15	16	32
04	14	11	7	6	15	23	43	43	28	17	12	18	20	32
07	20	17	10	7	15	24	44	45	27	20	20	23	23	32
10	22	17	6	3	4	7	16	18	13	14	17	26	14	32
13	17	9	2	1	1	1	0*	1	1	4	10	19	5	32
16	12	6	2	1	1	1	1	1	1	2	6	13	4	32
19	7	3	3	2	5	7	11	16	9	5	3	7	7	32
22	8	4	3	3	9	14	27	28	15	10	4	10	11	32
ALL	14	9	5	3	8	11	22	23	14	11	10	16	12	32

# 20 - FLYING WEATHER - PERCENT OF HOURS

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1981

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

## PERCENT OF HOURS WITH CEILING LESS THAN 500 FEET & VISIBILITY LESS THAN 1 MILES

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
01	4	2	1	1	2	4	9	8	4	5	2	5	4	32
04	6	5	2	1	2	5	10	10	6	7	4	7	5	32
07	10	8	3	1	2	4	8	9	5	7	8	9	6	32
10	7	6	2	0*	0	0	0	0*	0*	2	4	8	2	32
13	3	1	0*	0	0	0	0	0	0	0*	2	3	1	32
16	1	0*	0*	0	0	0	0	0*	0	0*	1	2	0*	32
19	2	0*	1	0	0	0*	1	1	0*	1	0*	1	1	32
22	3	0*	0*	0*	1	2	4	5	2	2	1	3	2	32
ALL	4	3	1	0*	1	2	4	4	2	2	3	5	3	32

## PERCENT OF HOURS WITH CEILING LESS THAN 100 FEET & VISIBILITY LESS THAN 1/2 MILES

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
01	3	1	0*	0	0	0	0	0	0*	0	0*	3	1	32
04	4	3	0*	0	0*	0	0	0	0*	1	2	3	1	32
07	6	5	1	0*	0*	0	0	0*	0*	2	3	6	2	32
10	3	3	1	0	0	0	0	0*	0	0*	1	4	1	32
13	1	0	0	0	0	0	0	0	0	0*	0*	1	0*	32
16	1	0	0	0	0	0	0	0	0	0	0	0*	0*	32
19	1	0*	0	0	0	0	0	0	0*	0	0	1	0*	32
22	1	0	0	0	0	0	0	0	0	0	0	1	0*	32
ALL	2	1	0*	0*	0*	0	0	0*	0*	0*	1	2	1	32

NOTE : \* = VALUE > 0 AND < 0.5 PERCENT

# 5 - DAILY TEMPERATURES

ELEMENT TYPE : MAXIMUM TEMPERATURE

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

## CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM DAILY OBSERVATIONS)

TEMP (DEG F)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
>=105	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0*
>=100	.0	.0	.0	.0	.1	.3	.2	.1	.3	.1	.0	.0	.1
>= 95	.0	.0	.0	.0	.2	.6	.3	.2	.9	.2	.0	.0	.2
>= 90	.0	.0	.0	.2	.7	2.2	1.2	.5	4.7	.8	.0	.0	.9
>= 85	.0	.0	.1	.7	2.2	5.0	2.8	2.5	10.7	4.4	.1	.0	2.4
>= 80	.0	.0	.5	4.0	6.0	10.6	8.4	8.8	19.8	11.5	.6	.0	5.9
>= 75	.0	.5	3.9	10.2	12.1	20.1	19.1	23.9	36.5	25.8	3.9	.0	13.1
>= 70	.6	3.8	11.6	20.6	28.0	50.6	58.0	64.4	74.0	53.2	14.5	.7	31.9
>= 65	3.7	16.5	30.3	48.2	67.7	85.6	94.4	94.7	97.2	85.5	37.4	4.6	55.8
>= 60	19.3	50.5	66.2	81.8	94.5	98.6	100.0	99.8	100.0	98.8	74.1	27.4	76.2
>= 55	58.7	87.2	93.2	96.7	99.6	99.9	100.0	100.0	100.0	100.0	96.8	70.7	91.9
>= 50	91.9	98.3	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	92.6	98.5
>= 45	99.1	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.2	99.9
>= 40	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	100.0
>= 35	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
MEAN	55.6	59.8	62.2	65.1	67.6	70.8	71.2	71.8	74.1	71.0	63.3	56.7	65.8
S.D.	4.725	5.040	5.798	6.719	6.351	6.769	5.470	5.342	7.075	6.586	5.570	4.803	8.409
TOT. OBS.	1271	1148	1301	1260	1302	1260	1302	1302	1260	1302	1259	1302	15269

NOTES :  
\* = PERCENT < .05

# 6 - DAILY TEMPERATURES

ELEMENT TYPE : MINIMUM TEMPERATURE

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

## CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM DAILY OBSERVATIONS)

TEMP (DEG F)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
>= 70	.0	.0	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0*
>= 65	.0	.0	.0	.1	.1	.5	.3	.0	1.9	.5	.1	.0	.3
>= 60	.0	.1	.1	.5	1.0	5.2	4.9	.0	20.5	8.8	.9	.0	4.4
>= 55	1.7	4.4	4.2	7.5	16.2	49.4	65.4	11.1	86.7	56.0	15.2	.0	32.5
>= 50	16.3	33.4	41.7	60.4	87.2	99.3	99.5	77.5	100.0	96.9	62.4	23.7	68.7
>= 45	49.2	75.9	87.9	94.9	99.6	100.0	100.0	99.9	100.0	99.8	93.7	61.9	88.6
>= 40	85.2	96.9	99.2	99.9	100.0	100.0	100.0	100.0	100.0	100.0	99.8	91.6	97.7
>= 35	98.0	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.1	99.7
>= 30	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	100.0
>= 25	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
MEAN	44.4	47.5	48.6	50.1	52.1	54.7	55.5	56.4	57.4	55.1	50.5	45.9	51.6
S.D.	4.846	4.231	3.566	3.215	2.646	2.668	2.393	2.499	2.882	3.152	3.844	4.672	5.424
TOT. OBS.	1271	1148	1301	1260	1302	1260	1302	1302	1260	1302	1259	1302	15269

NOTES :  
\* = PERCENT < .05



## 7 - DAILY TEMPERATURES

ELEMENT TYPE : MEAN TEMPERATURE

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM DAILY OBSERVATIONS)

TEMP (DEG F)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
>= 85	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0*
>= 80	.0	.0	.0	.0	.0	.5	.2	.1	.8	.2	.0	.0	.2
>= 75	.0	.0	.0	.2	.8	2.5	1.5	.7	6.3	1.2	.1	.0	1.1
>= 70	.0	.1	.2	1.5	3.0	8.1	6.2	7.3	17.6	8.8	.2	.0	4.4
>= 65	.0	.5	2.5	7.9	11.7	26.3	30.1	44.2	57.3	33.8	4.1	.0	18.4
>= 60	1.1	7.9	15.9	32.0	52.2	82.4	93.5	94.6	97.9	83.1	28.4	1.9	49.6
>= 55	15.7	43.8	59.9	79.8	95.3	99.8	100.0	99.9	100.0	99.3	73.5	26.0	74.7
>= 50	57.1	87.1	95.7	97.6	99.9	100.0	100.0	100.0	100.0	100.0	97.6	70.0	92.1
>= 45	91.3	98.5	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	94.0	98.6
>= 40	99.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.4	99.9
>= 35	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	100.0
>= 30	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
MEAN	50.2	53.9	55.7	57.9	60.1	63.0	63.6	64.3	66.0	63.3	57.2	51.5	58.9
S.D.	4.281	4.321	4.074	4.510	4.025	4.319	3.454	3.393	4.439	4.225	4.142	4.281	6.521
TOT. OBS.	1271	1148	1301	1260	1302	1260	1302	1302	1260	1302	1259	1302	15269

NOTES :  
\* = PERCENT < .05

# 8 - DAILY AMOUNTS

## PERCENTAGE FREQUENCY OF PRECIPITATION

(FROM DAILY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

	NONE	TRACE	.01	<=.05	<=.10	<=.25	<=.50	INCHES	<=.10	<=.25	<=.50	<=1.0	<=2.5	<=5.0	<=10.0	<=20.0	>20.0	2 OF DAYS WITH AMOUNTS	TOTAL NO. OF OBS	MEAN	HI	LOW	TOTAL PRECIPITATION (INCHES)
JAN	59.6	7.9	2.1	5.5	3.3	6.9	6.1	5.7	5.7	2.7	.1	.1	.0	.0	.0	.0	.0	32.5	1265	.37	9.04	.26	
FEB	59.2	8.9	2.3	5.3	3.8	8.0	6.2	4.8	4.8	1.4	.0	.0	.0	.0	.0	.0	.0	31.9	1144	.26	7.18	.00T	
MAR	59.7	10.9	2.0	6.5	3.3	6.8	6.2	4.6	4.6	1.1	.0	.0	.0	.0	.0	.0	.0	30.4	1300	.27	8.04	.00T	
APR	71.2	10.1	1.4	4.5	3.0	4.3	3.4	1.7	1.7	.4	.0	.0	.0	.0	.0	.0	.0	18.8	1253	.12	5.45	.00T	
MAY	78.9	13.8	1.1	1.9	1.5	1.5	1.0	.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	7.3	1296	.03	3.41	.00T	
JUN	81.7	15.3	.7	.7	.6	.6	.2	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	3.0	1257	.01	1.19	.00	
JUL	79.3	19.5	.3	.3	.2	.1	.1	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	1.2	1301	.01	.75	.00T	
AUG	75.1	22.4	.8	.8	.3	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.5	1300	.00T	.88	.00T	
SEP	81.7	14.1	.5	1.2	1.0	.9	.3	.2	.2	.1	.1	.0	.0	.0	.0	.0	.0	4.2	1260	.02	2.58	.00	
OCT	77.6	9.5	1.4	3.9	1.4	2.2	1.9	1.2	1.2	.8	.1	.0	.0	.0	.0	.0	.0	12.8	1300	.11	8.18	.00T	
NOV	66.0	7.9	2.0	4.8	3.2	5.8	5.2	3.3	3.3	1.6	.1	.0	.0	.0	.0	.0	.0	26.1	1258	.24	7.86	.00T	
DEC	60.7	9.1	2.1	5.9	3.2	6.4	5.8	4.5	4.5	2.1	.2	.0	.0	.0	.0	.0	.0	30.2	1301	.32	11.06	.18	
ANN	70.9	12.5	1.4	3.4	2.1	3.6	3.0	2.2	2.2	.8	.0*	.0*	.0	.0	.0	.0	.0	16.6	15235	1.78	35.47	6.61	

### NOTES :

.00T, .0 OR 0.1 = ZERO PRECIPITATION, SNOWFALL OR SNOW DEPTH MEASURED BUT A TRACE WAS NOTED

\* = PERCENT < .05

ANNUAL HI AND LOW VALUES ARE DERIVED FROM ANNUAL TOTALS.

# 9 - DAILY AMOUNTS

PERCENTAGE FREQUENCY OF  
SNOW FALL

(FROM DAILY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

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## NOTES :

\*.007, .0 OR 0.1 = ZERO PRECIPITATION, SNOWFALL OR SNOW DEPTH MEASURED BUT A TRACE WAS NOTED

\* = PERCENT ≤ .03

ANNUAL HI AND LOW VALUES ARE DERIVED FROM ANNUAL TOTALS.

# 10 - DAILY AMOUNTS

PERCENTAGE FREQUENCY OF  
SNOW DEPTH

(FROM DAILY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

	NONE	TRACE	1	2	3	4-6	7-12	13-24	25-36	37-48	49-60	61-120	> 120	% OF DAYS WITH AMOUNTS $\geq 1$	TOTAL NO. OF OBS	TOTAL PRECIPITATION (INCHES)		
																MEAN	HI	LOW
JAN	99.8	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1178	.0	.0	.0
FEB	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1064	.0	.0	.0
MAR	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1177	.0	.0	.0
APR	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1141	.0	.0	.0
MAY	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1178	.0	.0	.0
JUN	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1140	.0	.0	.0
JUL	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1177	.0	.0	.0
AUG	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1178	.0	.0	.0
SEP	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1139	.0	.0	.0
OCT	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1178	.0	.0	.0
NOV	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1142	.0	.0	.0
DEC	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1209	.0	.0	.0
ANN	100.0	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13901	.0	.0	.0

## NOTES :

\*0.01, .0 OR 0.1 = ZERO PRECIPITATION \*SNOWFALL OR SNOW DEPTH MEASURED BUT A TRACE WAS NOTED

\* = PERCENT < .05

ANNUAL HI AND LOW VALUES ARE DERIVED FROM ANNUAL TOTALS.

21 - DAILY EXTREME AMOUNTS

023239 ALAMEDA, CA

LAI. : 37.47N LONG. : 122 19W ELEV. : 15 FT.  
PERIOD OF RECORD : 1945-1986

MONTH : JAN

DAY	PRECIPITATION		SNOWFALL		SNOW DEPTH	
	INCHES	MM	INCHES	MM	INCHES	MM
1	.71	18	.00	0	0.	0
2	.92	23	.00	0	0.	0
3	1.11	28	T	1974	0.	0
4	5.27	134	.00	0	0.	0
5	1.02	26	.00	0	0.	0
6	.68	17	.00	0	0.	0
7	.52	13	.00	0	0.	0
8	1.58	40	.00	0	0.	0
9	1.04	26	.00	0	0.	0
10	.99	25	.00	0	0.	0
11	1.24	31	T	1951	0.	0
12	.95	24	T	1971	T	1971
13	1.14	29	.00	0	0.	0
14	1.92	49	.00	0	0.	0
15	1.26	32	.00	0	0.	0
16	1.59	40	.00	0	0.	0
17	1.71	43	.00	0	0.	0
18	1.16	29	.00	0	0.	0
19	1.12	28	.00	0	0.	0
20	1.88	48	.00	0	0.	0
21	2.68	68	T	1962	0.	0
22	1.49	38	.00	0	0.	0
23	.92	23	.00	0	0.	0
24	1.16	29	.00	0	0.	0
25	1.10	28	.00	0	0.	0
26	.88	22	.00	0	0.	0
27	1.26	32	T	1960	0.	0
28	1.07	27	T	1957	T	1957
29	1.51	38	.00	0	0.	0
30	1.08	27	.00	0	0.	0
31	1.22	31	.00	0	0.	0
MONTH	5.27	134	T	1974	T	1971

NOTES :  
T = TRACE AMOUNTS (<.01, OR <.5, OR < 1.0 INCHES)  
+ = VALUE OCCURRED IN PREVIOUS YEAR(S).

THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 21 - DAILY EXTREME AMOUNTS

023239 ALAMEDA, CA

LAT.: 37 47N LONG.: 122 19W ELEV.: 15 FI  
PERIOD OF RECORD: 1945-1986

MONTH: FEB

DAY	PRECIPITATION		SNOWFALL		SNOW DEPTH	
	INCHES	MM	INCHES	MM	INCHES	MM
1	.71	18	.00	0	0.	0
2	.61	15	.00	0	0.	0
3	.65	17	T	1972	0.	0
4	1.48	38	.00	0	0.	0
5	1.04	26	T	1976	0.	0
6	1.17	30	.00	0	0.	0
7	.84	21	.00	0	0.	0
8	.85	22	.00	0	0.	0
9	1.43	36	.00	0	0.	0
10	.92	23	.00	0	0.	0
11	1.11	28	.00	0	0.	0
12	1.05	27	.00	0	0.	0
13	1.33	34	.00	0	0.	0
14	1.39	35	.00	0	0.	0
15	1.81	46	.00	0	0.	0
16	.82	21	T	1984	0.	0
17	1.30	33	.00	0	0.	0
18	1.10	30	.00	0	0.	0
19	1.14	29	.00	0	0.	0
20	.9	23	.00	0	0.	0
21	.64	16	.00	0	0.	0
22	.73	18	T	1979	0.	0
23	.75	19	.00	0	0.	0
24	.56	14	.00	0	0.	0
25	1.30	33	.00	0	0.	0
26	.89	23	T	1953	0.	0
27	.76	19	.00	0	0.	0
28	.61	15	T	1951	0.	0
29						
30						
31						
MONTH	1.41	46	T	1984	0.	0

## NOTES:

T = TRACE AMOUNTS (&lt;.01, OR &lt;.5, OR &lt; 1.0 INCHES)

+ = VALUE OCCURRED IN PREVIOUS YEAR(S).

THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

# 21 - DAILY EXTREME AMOUNTS

023239 ALAMEDA, CA

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PERIOD OF RECORD : 1945-1986

MONTH : MAR

DAY	PRECIPITATION		SNOWFALL		SNOW DEPTH	
	INCHES	MM	INCHES	MM	INCHES	MM
1	.67	17	.00	0	0	0
2	.96	24	.00	0	0	0
3	.44	11	.00	0	0	0
4	.78	20	.00	0	0	0
5	.57	14	.00	0	0	0
6	.54	14	.00	0	0	0
7	.90	23	.00	0	0	0
8	1.61	41	.00	0	0	0
9	.52	13	.00	0	0	0
10	1.07	27	.00	0	0	0
11	.63	16	.00	0	0	0
12	1.34	34	.00	0	0	0
13	1.25	32	.00	0	0	0
14	1.00	25	.00	0	0	0
15	1.21	31	.00	0	0	0
16	.98	25	.00	0	0	0
17	.66	17	.00	0	0	0
18	.56	14	.00	0	0	0
19	1.04	27	.00	0	0	0
20	.94	24	.00	0	0	0
21	1.02	26	.00	0	0	0
22	.97	24	.00	0	0	0
23	1.24	31	.00	0	0	0
24	1.27	31	.00	0	0	0
25	1.11	28	.00	0	0	0
26	.74	19	.00	0	0	0
27	1.61	41	.00	0	0	0
28	.65	17	.00	0	0	0
29	.91	23	.00	0	0	0
30	.96	24	.00	0	0	0
31	1.67	42	.00	0	0	0
MONTH	1.67	42	.00	0	0	0

NOTES :  
T = TRACE AMOUNTS (<.01, OR <.5, OR < 1.0 INCHES)  
+ = VALUE OCCURRED IN PREVIOUS YEAR(S).  
THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

# 21 - DAILY EXTREME AMOUNTS

023239 ALAMEDA, CA

PERIOD OF RECORD : 1945-1986  
 LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

MONTH : APR

DAY	PRECIPITATION		SNOWFALL		SNOW DEPTH	
	INCHES	MM	INCHES	MM	INCHES	MM
1	1.23	31	0	0	0	0
2	1.25	32	0	0	0	0
3	.44	11	0	0	0	0
4	.53	13	0	0	0	0
5	.83	21	0	0	0	0
6	1.84	47	0	0	0	0
7	.67	17	0	0	0	0
8	.38	10	0	0	0	0
9	.66	17	0	0	0	0
10	1.47	37	0	0	0	0
11	.46	12	0	0	0	0
12	.09	2	0	0	0	0
13	.41	10	0	0	0	0
14	.55	14	0	0	0	0
15	.99	25	0	0	0	0
16	.27	7	0	0	0	0
17	.61	15	0	0	0	0
18	.30	10	0	0	0	0
19	.23	6	0	0	0	0
20	.39	10	0	0	0	0
21	.41	10	0	0	0	0
22	.21	5	0	0	0	0
23	.64	16	0	0	0	0
24	.38	10	0	0	0	0
25	.87	21	0	0	0	0
26	.87	21	0	0	0	0
27	1.33	34	0	0	0	0
28	.58	15	0	0	0	0
29	.27	6	0	0	0	0
30	.52	13	0	0	0	0
31						
MONTH	1.34	47	.00	0	0	0

NOTES :  
 T = TRACE AMOUNTS (<.01, OR <.5, OR < 1.0 INCHES)  
 + = VALUE OCCURRED IN PREVIOUS YEAR(S).  
 THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0



## 21 - DAILY EXTREME AMOUNTS

023239 ALAMEDA, CA

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FI  
PERIOD OF RECORD : 1945-1986

MONTH : MAY

DAY	PRECIPITATION		SNOWFALL		SNOW DEPTH	
	INCHES	MM	INCHES	MM	INCHES	MM
1	.47	12 1950	.00	0 1986	0.	0 1986
2	.09	2 1957+	.00	0 1986	0.	0 1986
3	.54	15 1951	.00	0 1986	0.	0 1986
4	.05	1 1973+	.00	0 1986	0.	0 1986
5	.34	9 1983	.00	0 1986	0.	0 1986
6	.05	1 1979+	.00	0 1986	0.	0 1986
7	.16	4 1952	.00	0 1986	0.	0 1986
8	.33	8 1963	.00	0 1986	0.	0 1986
9	.46	12 1957	.00	0 1986	0.	0 1986
10	.04	1 1963	.00	0 1986	0.	0 1986
11	.17	4 1977	.00	0 1986	0.	0 1986
12	.30	8 1945	.00	0 1986	0.	0 1986
13	.15	4 1945	.00	0 1986	0.	0 1986
14	.32	8 1949+	.00	0 1986	0.	0 1986
15	T	1 1979+	.00	0 1986	0.	0 1986
16	T	1 1979+	.00	0 1986	0.	0 1986
17	.20	5 1957	.00	0 1986	0.	0 1986
18	1.39	35 1957	.00	0 1986	0.	0 1986
19	.40	10 1961	.00	0 1986	0.	0 1986
20	.66	17 1957	.00	0 1986	0.	0 1986
21	.06	2 1953	.00	0 1986	0.	0 1986
22	.12	3 1953	.00	0 1986	0.	0 1986
23	.25	6 1960	.00	0 1986	0.	0 1986
24	.15	4 1960	.00	0 1986	0.	0 1986
25	.29	7 1946	.00	0 1986	0.	0 1986
26	.10	3 1946	.00	0 1986	0.	0 1986
27	.40	10 1947	.00	0 1986	0.	0 1986
28	T	1 1985+	.00	0 1986	0.	0 1986
29	.44	11 1948	.00	0 1986	0.	0 1986
30	.36	2 1948	.00	0 1986	0.	0 1986
31	.12	3 1947	.00	0 1986	0.	0 1986
MONTH	1.39	35 1957	.00	0 1986	0.	0 1986

NOTES :  
 T = TRACE AMOUNTS (<.01, OR <.5, OF < 1.0 INCHES)  
 + = VALUE OCCURRED IN PREVIOUS YEAR(S).  
 THIS SYMBOL OPTTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = D.O

## 21 - DAILY EXTREME AMOUNTS

023239 ALAMEDA, CA

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FI  
PERIOD OF RECORD : 1945-1986

MONTH : JUN

DAY	PRECIPITATION		SNOWFALL		SNOW DEPTH	
	INCHES	MM DATE	INCHES	MM DATE	INCHES	MM DATE
1	.06	2 1967	.00	0 1986	0.	0 1986
2	.97	25 1967	.00	0 1986	0.	0 1986
3	T	1 1985+	.00	0 1986	0.	0 1986
4	.0R	2 1947	.00	0 1986	0.	0 1986
5	.16	4 1967	.00	0 1986	0.	0 1986
6	.43	11 1953	.00	0 1986	0.	0 1986
7	.15	4 1947	.00	0 1986	0.	0 1986
8	.57	14 1970	.00	0 1986	0.	0 1986
9	.23	6 1972	.00	0 1986	0.	0 1986
10	.01	0 1948	.00	0 1986	0.	0 1986
11	T	1 1981+	.00	0 1986	0.	0 1986
12	.03	1 1954	.00	0 1986	0.	0 1986
13	T	1 1984+	.00	0 1986	0.	0 1986
14	T	1 1977+	.00	0 1986	0.	0 1986
15	.02	1 1964	.00	0 1986	0.	0 1986
16	T	1 1980+	.00	0 1986	0.	0 1986
17	T	1 1982+	.00	0 1986	0.	0 1986
18	.0A	2 1974	.00	0 1986	0.	0 1986
19	T	1 1985+	.00	0 1986	0.	0 1986
20	.02	1 1985	.00	0 1986	0.	0 1986
21	T	1 1982+	.00	0 1986	0.	0 1986
22	T	1 1982+	.00	0 1986	0.	0 1986
23	T	1 1982+	.00	0 1986	0.	0 1986
24	.03	1 1975	.00	0 1986	0.	0 1986
25	T	1 1986+	.00	0 1986	0.	0 1986
26	T	1 1986+	.00	0 1986	0.	0 1986
27	.0R	2 1952	.00	0 1986	0.	0 1986
28	.23	6 1952	.00	0 1986	0.	0 1986
29	.05	2 1982	.00	0 1986	0.	0 1986
30	T	1 1982+	.00	0 1986	0.	0 1986
31						
MONTH	.97	25 1967	.00	0 1986	0.	0 1986

NOTES :  
T = TRACE AMOUNTS (<.01, OR <.5, OR < 1.0 INCHES)  
+ = VALUE OCCURRED IN PREVIOUS YEAR(S).

THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

# 21 - DAILY EXTREME AMOUNTS

023239 ALAMEDA, CA

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PERIOD OF RECORD : 1945-1986

MONTH : JUL

DAY	PRECIPITATION		SNOWFALL		SNOW DEPTH	
	INCHES	MM	INCHES	MM	INCHES	MM
1	.03	1 1980	.00	0 1986	0.	0 1986
2	.10	3 1980	.00	0 1986	0.	0 1986
3	.01	0 1955	.00	0 1986	0.	0 1986
4	T	1 1979+	.00	0 1986	0.	0 1986
5	T	1 1984+	.00	0 1986	0.	0 1986
6	T	1 1981+	.00	0 1986	0.	0 1986
7	T	1 1974+	.00	0 1986	0.	0 1986
8	.75	19 1974	.00	0 1986	0.	0 1986
9	T	1 1975+	.00	0 1986	0.	0 1986
10	T	1 1985+	.00	0 1986	0.	0 1986
11	T	1 1985+	.00	0 1986	0.	0 1986
12	.02	1 1966	.00	0 1986	0.	0 1986
13	T	1 1980+	.00	0 1986	0.	0 1986
14	T	1 1982+	.00	0 1986	0.	0 1986
15	.15	4 1975	.00	0 1986	0.	0 1986
16	T	1 1981+	.00	0 1986	0.	0 1986
17	.01	0 1976	.00	0 1986	0.	0 1986
18	T	1 1985+	.00	0 1986	0.	0 1986
19	T	1 1985+	.00	0 1986	0.	0 1986
20	.06	2 1985	.00	0 1986	0.	0 1986
21	.52	13 1979	.00	0 1986	0.	0 1986
22	T	1 1986+	.00	0 1986	0.	0 1986
23	.01	0 1986	.00	0 1986	0.	0 1986
24	T	1 1983+	.00	0 1986	0.	0 1986
25	.02	1 1954	.00	0 1986	0.	0 1986
26	T	1 1986+	.00	0 1986	0.	0 1986
27	T	1 1985+	.00	0 1986	0.	0 1986
28	T	1 1978+	.00	0 1986	0.	0 1986
29	T	1 1985+	.00	0 1986	0.	0 1986
30	.43	11 1949	.00	0 1986	0.	0 1986
31	.03	1 1949	.00	0 1986	0.	0 1986
MONTH	.75	10 1974	.00	0 1986	0.	0 1986

NOTES :

T = TRACE AMOUNTS (<.01, OR <.5, OR < 1.0 INCHES)

+ = VALUE OCCURRED IN PREVIOUS YEAR(S).

THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

# 21 - DAILY EXTREME AMOUNTS

023239 ALAMEDA, CA

15 FI

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FI

PERIOD OF RECORD : 1945-1986

MONTH : AUG

DAY	PRECIPITATION		SNOWFALL		SNOW DEPTH	
	INCHES	MM	INCHES	MM	INCHES	MM
1	T	1984+	.00	0	0	1986
2	T	1986+	.00	0	0	1986
3	T	1986+	.00	0	0	1986
4	.01	0 1978	.00	0	0	1986
5	T	1986+	.00	0	0	1986
6	T	1986+	.00	0	0	1986
7	T	1985+	.00	0	0	1986
8	.02	1 1963+	.00	0	0	1986
9	.07	2 1962	.00	0	0	1986
10	T	1986+	.00	0	0	1986
11	.03	1 1965	.00	0	0	1986
12	T	1986+	.00	0	0	1986
13	T	1986+	.00	0	0	1986
14	.19	5 1976	.00	0	0	1986
15	.21	5 1976	.00	0	0	1986
16	T	1986+	.00	0	0	1986
17	.15	4 1976	.00	0	0	1986
18	.32	8 1976	.00	0	0	1986
19	.01	0 1983+	.00	0	0	1986
20	.01	0 1969	.00	0	0	1986
21	.08	2 1968	.00	0	0	1986
22	.01	0 1976	.00	0	0	1986
23	T	1986+	.03	0	0	1986
24	.02	1 1959	.00	0	0	1986
25	.01	0 1977+	.00	0	0	1986
26	.02	1 1961+	.00	0	0	1986
27	.06	2 1949	.00	0	0	1986
28	.01	0 1982	.03	0	0	1986
29	.12	3 1951	.00	0	0	1986
30	.14	4 1984	.00	0	0	1986
31	.01	0 1964	.00	0	0	1986
MONTH	.32	8 1976	.00	0	0	1986

NOTES :  
T = TRACE AMOUNTS (<.01, OR <.5, OR < 1.0 INCHES)  
+ = VALUE OCCURRED IN PREVIOUS YEAR(S).

THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 21 - DAILY EXTREME AMOUNTS

023239 ALAMEDA, CA

LAT.: 37 47N LONG.: 122 19W ELEV.: 15 FT  
PERIOD OF RECORD: 1945-1986

MONTH: SEP

DAY	PRECIPITATION		SNOWFALL		SNOW DEPTH	
	INCHES	MM	INCHES	MM	INCHES	MM
1	T	1985+	.00	0	0	1986
2	T	1985+	.00	0	0	1986
3	T	1982+	.00	0	0	1986
4	T	1986+	.00	0	0	1986
5	T	1986+	.00	0	0	1986
6	.04	1 1969	.00	0	0	1986
7	T	1986+	.00	0	0	1986
8	.20	5 1985	.00	0	0	1986
9	.23	6 1978	.00	0	0	1986
10	T	1980+	.00	0	0	1986
11	.02	1 1976	.00	0	0	1986
12	.09	2 1963	.00	0	0	1986
13	T	1985+	.00	0	0	1986
14	.01	0 1968	.00	0	0	1986
15	T	1977+	.00	0	0	1986
16	.30	8 1961	.00	0	0	1986
17	.07	2 1985	.00	0	0	1986
18	2.53	64 1959	.00	0	0	1986
19	.75	19 1977	.00	0	0	1986
20	.21	5 1973	.00	0	0	1986
21	.01	0 1983	.00	0	0	1986
22	.11	3 1973	.00	0	0	1986
23	.26	7 1982	.00	0	0	1986
24	.13	3 1986	.00	0	0	1986
25	.48	12 1982	.00	0	0	1986
26	.51	13 1972	.00	0	0	1986
27	1.05	27 1957	.00	0	0	1986
28	.24	6 1962	.00	0	0	1986
29	.46	12 1983	.00	0	0	1986
30	.60	15 1983	.00	0	0	1986
31						
MONTH	2.53	64 1959	.00	0	0	1986

## NOTES:

T = TRACE AMOUNTS (&lt;.01, OR &lt;.5, OR &lt; 1.0 INCHES)

+ = VALUE OCCURRED IN PREVIOUS YEAR(S).

THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 21 - DAILY EXTREME AMOUNTS

023239 ALAMEDA, CA

LAT. : 37.47N LONG. : 122.19W ELEV. : 15 FT  
PERIOD OF RECORD : 1945-1986

MONTH : OCT

DAY	PRECIPITATION		SNOWFALL		SNOW DEPTH	
	INCHES	MM	INCHES	MM	INCHES	MM
1	.37	9	.00	0	0.	0
2	.34	9	.00	0	0.	0
3	.01	0	.00	0	0.	0
4	1	1	.00	0	0.	0
5	.29	7	.00	0	0.	0
6	.08	2	.00	0	0.	0
7	.29	7	.00	0	0.	0
8	.17	4	.00	0	0.	0
9	1.19	30	.00	0	0.	0
10	1.38	35	.00	0	0.	0
11	1.97	50	.00	0	0.	0
12	2.36	60	.00	0	0.	0
13	3.54	90	.00	0	0.	0
14	.71	18	.00	0	0.	0
15	1.90	48	.00	0	0.	0
16	1.25	32	.00	0	0.	0
17	.02	1	.00	0	0.	0
18	.13	3	.00	0	0.	0
19	.26	7	.00	0	0.	0
20	.58	15	.00	0	0.	0
21	.51	13	.00	0	0.	0
22	.60	15	.00	0	0.	0
23	.32	8	.00	0	0.	0
24	.71	18	.00	0	0.	0
25	1.47	37	.00	0	0.	0
26	.38	10	.00	0	0.	0
27	.44	11	.00	0	0.	0
28	.75	19	.00	0	0.	0
29	.62	16	.00	0	0.	0
30	.81	21	.00	0	0.	0
31	.15	4	.00	0	0.	0
MONTH	3.54	90	.00	0	0.	0

## NOTES :

Y = TRACE AMOUNTS (&lt;.01, OR &lt;.5, OR &lt; 1.0 INCHES)

+ = VALUE OCCURRED IN PREVIOUS YEAR(S).

THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 21 - DAILY EXTREME AMOUNTS

023239 ALAMEDA, CA

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PERIOD OF RECORD : 1945-1986

MONTH : NOV

DAY	PRECIPITATION		SNOWFALL		SNOW DEPTH	
	INCHES	MM	INCHES	MM	INCHES	MM
1	.29	7	.00	0	0.	0
2	.41	10	.00	0	0.	0
3	1.34	34	.00	0	0.	0
4	.53	13	.00	0	0.	0
5	1.79	45	.00	0	0.	0
6	.83	21	.00	0	0.	0
7	.76	19	.00	0	0.	0
8	.48	12	.00	0	0.	0
9	.55	14	.00	0	0.	0
10	1.16	29	.00	0	0.	0
11	.92	23	T	1985	0.	0
12	1.97	50	.00	0	0.	0
13	1.85	47	.00	0	0.	0
14	1.00	25	.00	0	0.	0
15	.93	24	.00	0	0.	0
16	.75	19	.00	0	0.	0
17	.76	19	.00	0	0.	0
18	1.55	39	.00	0	0.	0
19	1.24	31	.00	0	0.	0
20	.88	22	.00	0	0.	0
21	1.67	42	.00	0	0.	0
22	.54	14	.00	0	0.	0
23	1.00	25	.00	0	0.	0
24	2.70	69	.00	0	0.	0
25	1.18	30	T	1985	0.	0
26	1.21	31	.00	0	0.	0
27	.89	23	.00	0	0.	0
28	1.09	28	.00	0	0.	0
29	1.09	26	.00	0	0.	0
30	1.27	32	T	1985	0.	0
31						
MONTH	2.70	69	T	1985	0.	0

## NOTES :

T = TRACE AMOUNTS (<.01. OR <.5. OR < 1.0 INCHES)  
+ = VALUE OCCURRED IN PREVIOUS YEAR(S).

THIS SYNROL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

# 21 - DAILY EXTREME AMOUNTS

023239 ALAMEDA, CA

PERIOD OF RECORD : 1945-1986  
LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

MONTH : DEC

DAY	PRECIPITATION		SNOWFALL		SNOW DEPTH	
	INCHES	MM	INCHES	MM	INCHES	MM
1	1.46	37	0.00	0	0.	0
2	.98	25	T	1970	0.	0
3	1.60	41	0.00	0	0.	0
4	.83	21	0.00	0	0.	0
5	2.11	54	0.00	0	0.	0
6	3.69	94	0.00	0	0.	0
7	1.02	26	0.00	0	0.	0
8	.64	16	0.00	0	0.	0
9	1.14	29	0.00	0	0.	0
10	.52	13	0.00	0	0.	0
11	.47	12	0.00	0	0.	0
12	.39	10	0.00	0	0.	0
13	.53	13	0.00	0	0.	0
14	.56	14	0.00	0	0.	0
15	1.08	27	0.00	0	0.	0
16	.80	20	0.00	0	0.	0
17	.83	21	T	1971	0.	0
18	.44	11	0.00	0	0.	0
19	1.41	36	T	1967	0.	0
20	1.89	48	0.00	0	0.	0
21	1.55	39	0.00	0	0.	0
22	1.86	47	T	1968	0.	0
23	1.62	41	0.00	0	0.	0
24	1.64	42	0.00	0	0.	0
25	.82	21	T	1968	0.	0
26	1.34	34	0.00	0	0.	0
27	3.53	90	0.00	0	0.	0
28	1.55	39	0.00	0	0.	0
29	1.72	44	0.00	0	0.	0
30	.73	19	0.00	0	0.	0
31	.49	12	0.00	0	0.	0
MONTH	3.60	94	T	1971	0.	0

NOTES :  
T = TRACE AMOUNTS (<.01, OR <.5, OR < 1.0 INCHES)  
+ = VALUE OCCURRED IN PREVIOUS YEAR(S).  
THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0



23 - EXTREME VALUES

PRECIPITATION (INCHES)  
(FROM DAILY OBS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PAGE : 1

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1945	MISS 1.47	MISS .61	T .74	MISS .02	T .29	MISS T	MISS T	MISS T	MISS T	T .09	MISS 1.24	T .68	MISS PART
1946	PART .36	PART .56	PART .65	PART .04	PART .40	T .22	T .43	PART T	T .01	PART .20	PART .55	PART .74	PART 1.08
1947	MISS 1.71	MISS .69	T 1.23	T .67	T .47	T T	T T	T T	T T	T 1.29	T 1.23	T 1.60	T 1.71
1948	PART .89	PART 1.48	T .69	T .58	T .59	T T	T T	T T	T T	T .71	T 1.21	T 1.55	T 1.55
1949	PART .52	T .46	T .92	T .21	T .16	T .23	T T	T T	T T	T .05	T .86	T 3.69	T PART
1950	MISS .89	MISS .71	T .98	T .72	T .13	T .03	T .02	T .10	T .01	T .13	T 1.01	T .04	T 1.33
1951	MISS .63	MISS .89	T .25	T .20	T .07	T T	T T	T T	T T	T .08	T .66	T 1.14	T 1.14
1952	MISS 1.92	MISS .73	T .83	T .83	T .36	T .02	T T	T T	T T	T .05	T .48	T 1.86	T 1.86
1953	MISS .95	MISS .64	T .43	T .61	T 1.39	T .06	T T	T T	T T	T 1.57	T .05	T .16	T 1.92
1954	MISS .92	MISS 1.15	T 1.24	T 1.25	T .12	T .04	T T	T T	T T	T 1.05	T .23	T .96	T 1.39
1955	MISS 1.16	MISS .92	T .14	T .24	T .01	T T	T T	T T	T T	T .08	T .04	T .68	T 1.25
1956	MISS .91	MISS .92	T .62	T .25	T .25	T T	T T	T T	T T	T .29	T 1.18	T .37	T 1.18
1957	MISS 1.10	MISS .24	T 1.00	T .41	T .40	T T	T T	T T	T T	T .04	T .95	T .96	T 1.10
1958	MISS .54	MISS 1.43	T .57	T .25	T T	T T	T T	T T	T T	T 3.54	T .34	T 1.08	T 3.54
1959	MISS 1.22	MISS 1.05	T 1.61	T .98	T .33	T T	T T	T T	T T	T .51	T 1.00	T .26	T 1.61
1960	MISS 1.35	MISS .11	T .69	T .02	T .05	T .47	T T	T T	T T	T .64	T 1.97	T .67	T 1.97
1961	MISS .85	MISS .33	T .56	T .66	T T	T T	T T	T T	T T	T .11	T .69	T 1.12	T 1.12
1962	MISS 1.51	MISS .65	T .26	T .17	T .10	T .06	T .07	T T	T T	T T	T .93	T .89	T 1.51
1963	MISS 2.68	MISS .16	T .75	T 1.84	T .07	T .97	T T	T T	T T	T .34	T .30	T .50	T 2.68
1964	MISS 1.08	MISS .61	T 1.34	T .37	T .07	T T	T T	T T	T T	T .17	T 1.00	T .56	T 1.34
1965	MISS 1.16	MISS 1.11	T .34	T .83	T T	T .01	T T	T T	T T	T 1.90	T .46	T 1.89	T 1.90
1966	MISS 1.23	MISS .38	T .78	T .05	T .03	T .57	T T	T T	T T	T .51	T 1.09	T .98	T 1.23
1967	MISS .42	MISS .15	T 1.06	T .29	T .05	T T	T T	T T	T T	T .03	T .45	T .78	T 1.06
1968	MISS .39	MISS .51	T .05	T .37	T T	T .23	T T	T T	T T	T 1.75	T 1.16	T .79	T 1.75
1969	MISS 1.59	MISS 1.17	T .59	T .01	T .05	T T	T T	T T	T T	T .60	T 1.79	T 1.34	T 1.79
1970	MISS 1.11	MISS .54	T .79	T 1.23	T T	T .06	T .75	T T	T T	T .34	T .62	T .86	T 1.23
1971	MISS .77	MISS .43	T 1.25	T .50	T T	T .03	T .15	T T	T T	T 1.19	T .13	T .35	T 1.25
1972	MISS .24	MISS .15	T .95	T .40	T T	T .01	T .01	T T	T T	T .37	T .54	T .73	T .95
1973	MISS .92	MISS .27	T 1.21	T .04	T .17	T T	T T	T T	T T	T .19	T 1.67	T .83	T 1.67
1974	MISS 1.14	MISS .83	T 1.61	T .99	T T	T T	T T	T T	T T	T T	T .30	T .33	T 1.61
1975	MISS 1.85	MISS 1.33	T .92	T .26	T .05	T T	T .52	T T	T T	T 1.38	T 1.34	T 1.50	T 1.85
1976	MISS 1.21	MISS 1.14	T .48	T .53	T .20	T T	T .10	T T	T T	T .04	T .06	T 1.24	T 1.24
1977	MISS 1.49	MISS .46	T .89	T .08	T .20	T T	T T	T T	T T	T .75	T 1.85	T 1.72	T 1.85
1978	MISS 5.27	MISS 1.81	T 1.67	T 1.47	T T	T .09	T .01	T T	T T	T 1.47	T 1.55	T 1.51	T 5.27
1979	MISS 1.26	MISS 1.30	T 1.13	T .64	T .34	T T	T T	T T	T T	T .20	T .80	T 1.64	T 1.64
1980	MISS .19	MISS .81	T .45	T .30	T .01	T .18	T T	T T	T T	T 1.25	T 1.16	T .44	T 1.25
1981	MISS .30	MISS .85	T .74	T .09	T .01	T .12	T .06	T T	T T	T .58	T 2.70	T .49	T 2.70
1982	MISS 1.33	MISS 1.33	T 1.07	T .20	T .08	T T	T .01	T T	T T	T .04	T .65	T .44	T PART

MEAN	1.16	.74	.79	.50	.17	.04	.05	.03	.20	.57	.85	.97	1.72
S.D.	.857	.436	.427	.434	.250	.106	.154	.061	.439	.724	.628	.666	.817
TOT OBS	38	39	41	47	41	41	41	39	41	40	39	42	36

NOTE : T = TRACE AMOUNTS (LESS THAN .01, .1, OR 1.0 INCHES)

## 23 - EXTREME VALUES

PRECIPITATION (INCHES)  
(FROM DAILY OBS)023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PAGE : 1

## YEAR/MONTHS WITH &lt; FULL NUMBER OF OBSERVATIONS

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL PRECIP # DAYS
1946								T 30					
1947	1.07 27	.92 26						T 30		1.09 30	.22 29		PRECIP # DAYS
1948		.31 26	.59 29	.38 25	.44 30					.16 30	.25 29		PRECIP # DAYS
1952	1.02 30												PRECIP # DAYS
1986	.88 30												PRECIP # DAYS

24 - EXTREME VALUES

SNOWFALL (INCHES)  
(FROM DAILY OBS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PAGE : 1

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1948	.0	PART	PART	.0	.0	.0	.0	.0	.0	.0	.0	.0	PART
1949	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1950	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1951	T	T	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	T
1952	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1953	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1954	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1955	.0	T	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	T
1956	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1957	T	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	T
1958	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1959	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1960	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1961	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1962	T	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	T
1963	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1964	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1965	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	T
1966	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1967	.0	.0	T	.0	.0	.0	.0	.0	.0	.0	.0	.0	T
1968	T	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	T
1969	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1970	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	T
1971	T	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	T
1972	.0	T	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	T
1973	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1974	T	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	T
1975	.0	.0	T	.0	.0	.0	.0	.0	.0	.0	.0	.0	T
1976	.0	T	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	T
1977	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1978	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1979	.0	T	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	T
1980	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1981	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1982	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1983	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1984	.0	T	T	.0	.0	.0	.0	.0	.0	.0	.0	.0	T
1985	.0	.0	T	.0	.0	.0	.0	.0	.0	.0	.0	.0	T
1986	.0	.0	T	.0	.0	.0	.0	.0	.0	.0	.0	.0	T

MEAN	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
S.D.	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
TOT OBS	18	17	17	18	18	18	18	18	18	18	15	18	17

NOTE : T = TRACE AMOUNTS (LESS THAN .01, .1, OR 1.0 INCHES)

SNOWFALL (INCHES)  
(FROM DAILY OBS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PAGE : 1

YEAR/MONTHS WITH &lt; FULL NUMBER OF OBSERVATIONS

[illegible]

# 25 - EXTREME VALUES

SNOW DEPTH (INCHES)  
(FROM DAILY OBS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986  
LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PAGE : 1

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1957	T	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1958	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1959	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1960	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1961	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1962	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1963	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1964	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1965	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1966	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1967	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1968	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1969	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1970	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS
1971	T	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	MISS	T

MEAN \*\*\*\*\*5999999.0  
S.D. \*\*\*\*\*  
TOT OBS 2 2 2 2 2 2 2 2 2 2 2 2 2 1  
NOTE : T = TRACE AMOUNTS (LESS THAN .01. .1. OR 1.0 INCHES)

25 - EXTREME VALUES

SNOW DEPTH (INCHES)  
(FROM DAILY OBS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PAGE : 1

YEAR/MONTHS WITH < FULL NUMBER OF OBSERVATIONS

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL SNO DEPTH # DAYS
1957							0. 30		0. 29				

27 - EXTREME VALUES

DAILY PEAK GUST (KNOTS)  
(FROM DAILY OBS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986  
LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PAGE : 1

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1948	PART NW 31	PART SSW 38	W 30	W 29	W 26	W 23	W 21	W 20	W 20	W 20	W 20	W 20	PART
1949	N 30	SSW 41	SSW 40	W 38	SSW 31	W 24	W 24	W 23	W 23	W 23	W 23	W 23	PART
1950	SW 46	PART	PART	W 29	W 29	W 29	W 29	W 29	W 29	W 29	W 29	W 29	PART
1951	W 52	SE 27	W 22	W 22	W 22	W 22	W 22	W 22	W 22	W 22	W 22	W 22	W 52
1952	PART NW 30	SE 37	PART SW 31	W 27	W 27	W 27	W 27	W 27	W 27	W 27	W 27	W 27	PART
1953	PART N 38	SSW 36	S 26	PART	W 32	PART NW 22	PART	PART	PART	PART	PART	PART	PART
1954	S 44	SW 32	NW 29	SE 27	W 30	W 28	W 29	W 23	W 24	W 24	W 24	W 24	S 44
1955	SE 33	SSW 36	PART SE 46	W 34	W 34	W 34	W 34	W 34	W 34	W 34	W 34	W 34	PART
1956	S 40	N 51	W 33	S 43	W 34	W 31	W 31	W 31	W 31	W 31	W 31	W 31	N 51
1957	SSW 45	SE 39	W 34	S 44	S 30	W 30	W 25	W 32	PART SE 32	PART SE 32	PART SE 32	PART SE 32	PART
1958	SE 38	SSW 59	SE 46	SSW 46	W 32	W 32	W 32	W 32	W 32	W 32	W 32	W 32	SSW 59
1959	SE 48	SE 49	W 31	PART NW 31	W 31	W 31	W 26	W 26	W 26	W 26	W 26	W 26	PART
1960	SE 34	W 55	W 41	W 42	W 38	W 31	W 26	W 28	W 24	W 24	W 24	W 24	W 55
1961	SSE 26	W 32	W 37	S 44	W 30	W 32	W 35	W 28	N 35	N 35	N 35	N 35	NNE 45
1962	S 36	SE 46	NW 44	W 36	W 39	W 37	W 25	W 28	W 28	W 28	W 28	W 28	SE 46
1963	S 40	W 24	SE 40	S 33	W 26	W 30	W 26	W 26	W 23	W 23	W 23	W 23	S 43
1964	S 48	NE 39	NW 45	NW 41	SW 33	W 33	W 31	W 35	N 30	N 30	N 30	N 30	NW 62
1965	SE 43	N 34	S 31	NW 43	N 34	W 38	W 24	W 30	NNE 42	SW 25	W 43	W 43	SSE 48
1966	SE 36	NNE 37	NW 29	W 31	SSW 27	W 30	W 32	W 31	W 32	N 32	SE 36	SE 36	SSE 42
1967	SE 52	NW 36	SSW 50	W 38	NW 33	W 31	W 21	W 21	W 21	W 21	W 21	W 21	SE 52
1968	SSE 38	SE 29	S 38	S 33	W 33	W 32	W 26	W 32	W 29	SE 29	SE 29	SE 29	SSE 45
1969	SSW 52	SSE 48	W 35	SW 33	NW 25	W 31	W 27	W 24	W 24	W 24	W 24	W 24	MISS
1970	SW 43	NE 35	N 36	W 39	W 31	PART	PART	PART	PART	PART	PART	PART	PART
1971	W 40	UNK 34	NW 35	PART	PART	PART	PART	PART	PART	PART	PART	PART	PART
1972	UNK 30	UNK 25	UNK 26	UNK 29	UNK 25	PART	PART	PART	PART	PART	PART	PART	PART
1973	UNK 37	UNK 31	PART	PART	PART	PART	PART	PART	PART	PART	PART	PART	PART
1974	NNE 37	UNK 33	NW 31	UNK 30	UNK 35	UNK 25	UNK 26	PART	UNK 25	UNK 25	UNK 25	UNK 25	PART
1975	UNK 35	UNK 36	UNK 42	UNK 33	UNK 38	UNK 32	UNK 27	UNK 29	UNK 24	UNK 33	UNK 33	UNK 33	UNK 42
1976	N 33	UNK 38	UNK 37	UNK 38	UNK 30	UNK 33	UNK 29	UNK 28	UNK 25	UNK 30	PART	UNK 25	PART
1977	UNK 34	UNK 39	UNK 35	UNK 35	UNK 33	PART	PART	PART	UNK 31	UNK 31	UNK 35	UNK 36	PART
1978	UNK 45	UNK 44	UNK 33	UNK 34	UNK 33	PART	UNK 32	UNK 31	UNK 30	UNK 31	UNK 27	UNK 40	PART
1979	NNE 34	UNK 38	NW 40	UNK 34	UNK 30	UNK 34	UNK 27	UNK 34	UNK 24	UNK 33	UNK 26	UNK 43	UNK 43
1980	UNK 44	UNK 40	UNK 36	UNK 32	UNK 40	UNK 32	UNK 25	UNK 24	UNK 32	UNK 25	UNK 26	UNK 35	UNK 44
1981	NW 36	UNK 29	UNK 36	UNK 27	UNK 34	UNK 27	UNK 26	UNK 27	UNK 27	UNK 39	UNK 43	UNK 33	UNK 43
1982	UNK 42	UNK 32	UNK 44	UNK 36	UNK 32	UNK 31	UNK 24	UNK 27	UNK 27	UNK 29	UNK 34	UNK 55	UNK 55
1983	NW 37	UNK 38	UNK 34	UNK 34	UNK 33	UNK 34	UNK 25	UNK 25	UNK 22	UNK 27	UNK 40	UNK 52	UNK 52
1984	UNK 28	UNK 34	UNK 33	UNK 30	UNK 28	UNK 27	UNK 20	UNK 20	UNK 29	UNK 32	UNK 30	UNK 34	UNK 34
1985	UNK 19	UNK 25	UNK 29	UNK 24	UNK 24	UNK 28	UNK 20	UNK 22	UNK 22	UNK 23	UNK 28	UNK 29	PART
1986	UNK 22	UNK 38	UNK 35	UNK 30	UNK 30	UNK 26	UNK 23	UNK 24	PART	UNK 22	UNK 25	UNK 19	PART

MEAN 38.3 36.9 36.0 34.7 31.6 30.5 26.2 25.9 26.7 32.2 34.8 36.9 47.0  
S.D. 7.044 8.026 5.886 6.287 4.385 3.291 4.073 4.338 4.882 6.868 6.285 10.617 7.768  
TOT OBS 36 38 35 35 36 36 34 35 33 35 36 37 21

## 27 - EXTREME VALUES

DAILY PEAK GUST (KNOTS)  
(FROM DAILY OBS)023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PAGE : 1

## YEAR/MONTHS WITH &lt; FULL NUMBER OF OBSERVATIONS

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL PEAK GUST # DAYS
1948	NE 26 23	NE 26 23	S 30 30					WNW 23 29					
1949											S 30 29		PEAK GUST # DAYS
1950		SE 30 24	NW 36 30										PEAK GUST # DAYS
1952	S 43 30			W 26 29						W 15 30			PEAK GUST # DAYS
1953	WSW 29 30			W 40 28		W 22 30			W 22 29	N 36 30	SSW 53 29		PEAK GUST # DAYS
1955			NNE 33 29										PEAK GUST # DAYS
1957									W 30 29				PEAK GUST # DAYS
1959				S 25 29									PEAK GUST # DAYS
1969												SE 34 29	PEAK GUST # DAYS
1970						W 41 29	W 25 26	SSW 24 30	SW 30 29				PEAK GUST # DAYS
1971				UNK 30 27	UNK 31 28	UNK 25 30		UNK 22 20	UNK 31 20				PEAK GUST # DAYS
1972					UNK 23 26	UNK 29 27	UNK 27 28				UNK 36 30		PEAK GUST # DAYS
1973			E 32 30	UNK 32 29	UNK 32 30								PEAK GUST # DAYS
1974							UNK 29 30						PEAK GUST # DAYS
1976											UNK 38 29		PEAK GUST # DAYS
1977						UNK 28 26	UNK 32 30						PEAK GUST # DAYS



1986

UNK 26  
29

PEAK GUST  
# DAYS

# 29 - DAILY AVERAGE/EXTREME TEMPERATURES

023239 ALAMEDA, CA  
 PERIOD OF RECORD : 1945-1986  
 LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN

MEAN TEMPERATURE				MAXIMUM TEMPERATURE				MINIMUM TEMPERATURE			
AVERAGE		EXTREME		AVERAGE		EXTREME		AVERAGE		EXTREME	
DAY	DEG F	DEG C	DATE	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C
1	48.7	9.3	54.4	12.5	12.5	61.0	16.1	1973.	43.0	6.1	34.0
2	48.5	9.2	53.9	12.2	12.2	64.0	17.8	1984.	43.2	6.2	36.0
3	48.6	9.2	54.0	12.2	12.2	64.0	17.8	1964.	43.1	6.2	34.0
4	48.5	9.2	54.1	12.3	12.3	64.0	17.8	1958.	42.9	6.1	33.0
5	48.6	9.2	54.0	12.2	12.2	63.0	17.2	1986.+	43.1	6.2	31.0
6	49.3	9.6	55.1	12.8	12.8	65.0	18.3	1948.	43.4	6.3	34.0
7	48.9	9.4	54.3	12.4	12.4	63.0	17.2	1963.	43.4	6.3	31.0
8	49.8	9.9	55.1	12.6	12.6	69.0	20.6	1962.	44.6	7.0	37.0
9	49.4	9.7	54.7	12.6	12.6	69.0	20.6	1962.	44.1	6.7	35.0
10	49.6	9.8	55.0	12.8	12.8	66.0	18.9	1962.+	44.3	6.8	31.0
11	49.7	9.8	54.8	12.7	12.7	64.0	17.8	1984.	44.5	7.0	30.0
12	50.3	10.1	55.8	13.2	13.2	72.0	22.2	1948.	44.7	7.1	34.0
13	50.0	10.0	55.9	13.3	13.3	66.0	18.9	1967.	44.2	6.8	31.0
14	50.1	10.0	56.0	13.3	13.3	67.0	19.4	1975.	44.1	6.7	37.0
15	50.0	10.0	55.5	13.1	13.1	68.0	20.0	1966.	44.4	6.9	35.0
16	50.7	10.4	56.6	13.7	13.7	68.0	20.0	1948.	44.7	7.1	37.0
17	50.2	10.1	56.0	13.3	13.3	64.0	17.8	1986.+	44.4	6.9	36.0
18	50.4	10.2	55.8	13.2	13.2	68.0	20.0	1958.	45.0	7.2	36.0
19	50.4	10.2	55.1	12.8	12.8	67.0	19.4	1976.	45.7	7.6	38.0
20	50.3	10.2	55.7	13.2	13.2	69.0	20.6	1976.	44.9	7.2	34.0
21	50.3	10.2	55.5	13.0	13.0	66.0	18.9	1976.	45.2	7.3	34.0
22	51.2	10.7	57.2	14.0	14.0	72.0	22.2	1962.	45.2	7.3	33.0
23	51.0	10.6	57.1	14.0	14.0	71.0	21.7	1974.	44.9	7.2	32.0
24	50.5	10.3	56.1	13.4	13.4	67.0	19.4	1984.+	44.9	7.2	32.0
25	50.6	10.3	56.3	13.5	13.5	68.0	20.0	1986.+	44.8	7.1	33.0
26	51.1	10.6	57.2	14.0	14.0	72.0	22.2	1984.	45.0	7.2	34.0
27	50.9	10.5	57.0	13.9	13.9	72.0	22.2	1984.	44.8	7.1	34.0
28	50.4	10.2	56.3	13.5	13.5	68.0	20.0	1976.	44.5	6.9	36.0
29	49.8	9.9	55.3	13.0	13.0	65.0	18.3	1984.	44.3	6.8	35.0
30	51.0	10.5	57.1	13.9	13.9	70.0	21.1	1976.	44.9	7.2	38.0
31	50.9	10.5	57.0	13.9	13.9	71.0	21.7	1976.	44.9	7.2	36.0
MONTH	50.0	10.0	55.6	13.1	13.1	72.0	22.2	1984.+	44.4	6.9	36.0
											-1.1
											1949.

NOTES :  
 T = TRACE AMOUNTS (<.01, OR <.5, OR < 1.0 INCHES)  
 + = VALUE OCCURRED IN PREVIOUS YEAR(S).  
 THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

# 29 - DAILY AVERAGE/EXTREME TEMPERATURES

023239 ALAMEDA, CA.  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : FEB

MEAN TEMPERATURE				MAXIMUM TEMPERATURE				MINIMUM TEMPERATURE						
DAY	AVERAGE		DATE	AVERAGE		DATE	EXTREME		AVERAGE		DATE	EXTREME		
	DEG F	DEG C		DEG F	DEG C		DEG F	DEG C	DEG F	DEG C				
1	52.0	11.1		58.0	14.4		73.0	22.8	1976.	45.9	7.7	34.0	1.1	1950.
2	51.8	11.0		58.0	14.4		72.0	22.2	1976.	45.7	7.6	36.0	2.2	1949.
3	51.9	11.0		58.3	14.6		69.0	20.6	1984.	45.4	7.4	38.0	3.3	1972.+
4	52.4	11.3		58.7	14.8		69.0	20.6	1963.	46.1	7.8	38.0	3.3	1946.
5	52.4	11.3		58.0	14.5		68.0	20.0	1961.	46.8	8.2	38.0	3.3	1976.
6	53.1	11.7		59.0	15.0		70.0	21.1	1967.	47.2	8.5	36.0	2.2	1949.
7	52.8	11.6		58.7	14.8		68.0	20.0	1963.	47.0	8.3	38.0	3.3	1948.
8	53.0	11.7		58.9	14.9		73.0	22.8	1970.	47.0	8.4	36.0	2.2	1949.
9	52.9	11.6		58.4	14.7		68.0	20.0	1953.	47.3	8.5	41.0	5.0	1950.+
10	53.3	11.8		59.0	15.0		66.0	18.9	1971.+	47.6	8.7	40.0	4.4	1985.
11	53.2	11.8		59.1	15.0		67.0	19.4	1971.+	47.2	8.5	37.0	2.8	1949.
12	53.4	11.9		59.4	15.2		69.0	20.6	1953.	47.4	8.6	34.0	1.1	1949.
13	53.5	11.9		59.6	15.3		70.0	21.1	1977.	47.4	8.6	34.0	1.1	1949.
14	53.5	12.0		59.6	15.3		74.0	23.3	1977.	47.5	8.6	34.0	1.1	1949.
15	54.1	12.3		60.1	15.6		72.0	22.2	1977.	48.2	9.0	41.0	5.0	1956.
16	54.0	12.2		59.8	15.4		70.0	21.1	1977.	48.2	9.0	38.0	3.3	1956.
17	53.9	12.2		60.0	15.6		72.0	22.2	1977.	47.8	8.8	40.0	4.4	1956.+
18	53.8	12.1		59.9	15.5		72.0	22.2	1981.	47.6	8.7	39.0	3.9	1956.
19	54.0	12.2		59.8	15.4		76.0	24.4	1964.	48.1	9.0	39.0	3.9	1949.
20	54.6	12.5		61.1	16.2		72.0	22.2	1964.	48.0	8.9	42.0	5.6	1976.+
21	54.7	12.6		61.5	16.4		79.0	26.1	1985.	47.9	8.8	42.0	5.6	1976.+
22	54.6	12.6		61.1	16.2		78.0	25.6	1985.	48.1	9.0	40.0	4.4	1964.
23	54.8	12.6		61.8	16.5		72.0	22.2	1985.+	47.8	8.8	42.0	5.6	1971.+
24	55.0	12.8		61.7	16.5		76.0	24.4	1954.	48.3	9.1	40.0	4.4	1964.
25	54.8	12.7		61.6	16.3		73.0	22.8	1968.	48.2	9.0	38.0	3.3	1964.
26	54.2	12.3		60.6	15.9		76.0	24.4	1968.	47.8	8.8	37.0	2.8	1971.
27	54.9	12.7		61.6	16.4		76.0	24.4	1986.	48.3	9.0	36.0	2.2	1962.
28	54.7	12.6		60.7	15.9		70.0	21.1	1986.+	48.7	9.3	40.0	4.4	1962.+
MONTH	53.6	12.0		59.8	15.4		79.0	26.1	1985.	47.5	8.6	34.0	1.1	1950.+

NOTES :  
T = TRACE AMOUNTS (.01, OR <.5, OR < 1.0 INCHES)  
+ = VALUE OCCURRED IN PREVIOUS YEAR(S).  
THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

# 29 - DAILY AVERAGE/EXTREME TEMPERATURES

021239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 39W ELEV. : 15 FT  
MONTH : MAR

MEAN TEMPERATURE				MAXIMUM TEMPERATURE				MINIMUM TEMPERATURE			
AVERAGE		EXTREME		AVERAGE		EXTREME		AVERAGE		EXTREME	
DAY	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DEG F	DEG F	DEG C	DEG F	DEG C
1	53.8	12.1	60.1	15.6	76.0	24.4	1954.	47.5	8.6	38.0	3.3
2	53.7	12.1	59.9	15.5	71.0	21.7	1968.+	47.5	8.6	37.0	2.8
3	54.1	12.3	60.8	16.0	80.0	26.7	1959.	47.4	8.6	36.0	2.2
4	54.8	12.7	61.4	16.3	77.0	25.0	1984.+	48.3	9.0	40.0	4.4
5	54.7	12.6	61.3	16.3	74.0	23.3	1972.	48.0	8.9	38.0	3.3
6	54.6	12.6	61.2	16.2	74.0	23.3	1953.	48.0	8.9	39.0	3.9
7	55.1	12.8	61.9	16.6	78.0	25.6	1953.	48.3	9.0	40.0	4.4
8	55.5	13.0	62.1	16.7	73.0	22.8	1955.+	48.8	9.4	43.0	6.1
9	54.7	12.6	60.4	15.8	72.0	22.2	1946.	49.1	9.5	43.0	6.1
10	54.5	12.5	60.5	15.8	70.0	21.1	1959.	48.4	9.1	41.0	5.0
11	54.7	12.6	60.8	16.0	72.0	22.2	1959.	48.6	9.2	41.0	5.0
12	54.5	12.5	60.9	16.0	71.0	21.7	1959.	48.2	9.0	43.0	6.1
13	54.6	12.5	61.5	16.4	76.0	24.4	1947.	47.6	8.7	39.0	3.9
14	54.8	12.7	62.0	16.6	77.0	25.0	1951.	47.6	8.7	42.0	5.6
15	55.2	12.9	62.0	16.7	82.0	27.8	1972.	48.4	9.1	42.0	5.6
16	55.3	12.9	62.1	16.7	80.0	26.7	1960.	48.5	9.2	43.0	6.1
17	55.5	13.1	62.5	16.9	79.0	26.1	1960.	48.6	9.2	41.0	5.0
18	55.9	13.3	62.9	17.2	78.0	25.6	1951.	48.9	9.4	41.0	5.0
19	56.4	13.6	64.0	17.8	77.0	25.0	1986.	48.8	9.4	41.0	5.0
20	55.2	12.9	62.0	16.6	74.0	23.3	1965.	48.5	9.2	41.0	5.0
21	55.2	12.9	61.9	16.6	76.0	24.4	1965.	48.5	9.2	44.0	6.7
22	55.4	13.0	61.9	16.6	72.0	22.2	1984.	48.9	9.4	43.0	6.1
23	56.0	13.3	63.0	17.2	75.0	23.9	1970.	49.0	9.5	42.0	5.6
24	55.8	13.2	62.3	17.1	77.0	25.0	1970.	48.8	9.3	41.0	5.0
25	56.1	13.4	63.4	17.4	84.0	28.9	1952.	48.8	9.4	41.0	5.0
26	57.1	13.9	64.7	18.1	84.0	28.9	1952.	49.5	9.7	42.0	5.6
27	57.3	14.1	64.8	18.2	78.0	25.6	1986.+	49.9	9.9	44.0	6.7
28	56.8	13.8	64.2	17.9	79.0	26.1	1968.	49.4	9.7	42.0	5.6
29	56.7	13.7	63.6	17.6	80.0	26.7	1968.	49.7	9.8	44.0	6.7
30	56.7	13.7	63.7	17.6	77.0	25.0	1950.	49.6	9.8	44.0	6.7
31	56.6	13.7	63.8	17.7	86.0	30.0	1966.	49.5	9.7	42.0	5.6
MONTH	55.4	13.0	62.2	16.8	86.0	30.0	1966.	48.6	9.2	36.0	2.2

NOTES :  
T = TRACE AMOUNTS (<.01. OR <.5. OR < 1.0 INCHES)  
+ = VALUE OCCURRED IN PREVIOUS YEAR(S).  
THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

# 29 - DAILY AVERAGE/EXTREME TEMPERATURES

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : APR

MEAN TEMPERATURE			MAXIMUM TEMPERATURE			MINIMUM TEMPERATURE		
AVERAGE			AVERAGE			AVERAGE		
DAY	DEG F	DEG C	DEG F	DEG C	DATE	DEG F	DEG C	DATE
1	56.1	13.4	63.5	17.5	1985.	48.6	9.2	38.0 3.3 1967.
2	57.0	13.9	64.7	18.2	1985.	49.3	9.6	44.0 6.7 1976.+
3	58.0	14.5	66.2	19.0	1961.	49.9	9.9	44.0 6.7 1967.+
4	58.3	14.6	66.3	19.0	1985.	50.4	10.2	45.0 7.2 1975.+
5	57.0	13.9	63.3	17.4	1961.	50.6	10.4	43.0 6.1 1975.
6	56.6	13.6	63.3	17.4	1962.	49.9	9.9	43.0 6.1 1975.
7	56.6	13.7	63.8	17.7	1962.	49.4	9.6	44.0 6.7 1971.+
8	56.9	13.9	64.1	17.8	1961.	49.8	9.9	43.0 6.1 1971.
9	56.6	13.6	63.5	17.5	1968.	49.6	9.8	43.0 6.1 1953.
10	57.2	14.0	64.8	18.2	1949.	49.6	9.8	42.0 5.6 1967.
11	57.7	14.3	65.7	18.7	1958.	49.7	9.9	40.0 4.4 1967.
12	58.9	15.0	67.0	19.4	1947.	50.9	10.5	44.0 6.7 1956.
13	58.2	14.6	65.7	18.7	1947.	50.7	10.4	44.0 6.7 1972.
14	58.8	14.9	66.8	19.3	1947.	50.9	10.5	46.0 7.8 1975.+
15	58.1	14.5	65.9	18.8	1966.	50.3	10.2	44.0 6.7 1975.
16	57.3	14.1	64.8	18.2	1966.	49.8	9.9	42.0 5.6 1967.
17	56.8	13.9	63.8	17.7	1954.	49.7	9.9	43.0 6.1 1971.
18	57.7	14.3	65.3	18.5	1950.	50.2	10.1	41.0 5.0 1967.
19	58.1	14.5	65.8	18.8	1950.	50.4	10.2	40.0 4.4 1967.
20	57.6	14.2	65.1	18.4	1986.	50.0	10.0	40.0 4.4 1967.
21	57.5	14.1	65.2	18.4	1982.	49.7	9.9	40.0 4.4 1971.
22	57.7	14.3	65.3	18.5	1966.	50.2	10.1	42.0 5.6 1967.
23	57.9	14.4	65.5	18.6	1966.	50.4	10.2	44.0 6.7 1964.
24	57.6	14.2	64.8	18.2	1973.+	50.4	10.2	43.0 6.1 1971.
25	57.3	14.0	64.1	17.8	1965.+	50.5	10.3	44.0 6.7 1967.
26	58.0	14.5	65.7	18.7	1965.	50.4	10.2	43.0 6.1 1967.+
27	58.4	14.7	66.1	19.0	1957.	50.6	10.3	44.0 6.7 1970.+
28	58.1	14.5	65.8	18.8	1981.	50.5	10.3	41.0 5.0 1967.
29	58.7	14.8	66.5	19.1	1981.	50.9	10.5	43.0 6.1 1967.
30	58.3	14.6	66.0	18.9	1947.	50.6	10.3	44.0 6.7 1967.
MONTH	57.6	14.2	65.1	18.4	1947.	50.1	10.1	38.0 3.3 1967.

NOTES :  
T = TRACE AMOUNTS (<0.1, OR <0.5, OF <1.0 INCHES)  
+ = VALUE OCCURRED IN PREVIOUS YEAR(S).  
THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 29 - DAILY AVERAGE/EXTREME TEMPERATURES

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : MAY

MEAN TEMPERATURE				MAXIMUM TEMPERATURE				MINIMUM TEMPERATURE			
AVERAGE		AVERAGE		AVERAGE		AVERAGE		AVERAGE		AVERAGE	
DAY	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DATE
1	58.4	14.6	65.7	18.7	87.0	30.6	1947.	51.0	10.5	45.0	7.2 1969.*
2	58.3	14.6	65.9	18.8	83.0	28.3	1970.	50.7	10.4	44.0	6.7 1964.*
3	58.0	14.4	65.1	18.4	80.0	26.7	1953.	50.8	10.4	45.0	7.2 1950.
4	58.3	14.6	65.5	18.6	85.0	29.4	1953.	51.1	10.6	44.0	6.7 1964.*
5	58.8	14.9	66.4	19.1	83.0	28.3	1969.	51.2	10.7	43.0	6.1 1964.
6	59.6	15.4	67.6	19.8	89.0	31.7	1949.	51.7	10.9	42.0	5.6 1964.*
7	59.4	15.2	67.0	19.5	84.0	28.9	1959.	51.8	11.0	46.0	7.8 1968.
8	58.4	14.6	65.3	18.5	81.0	27.2	1984.	51.4	10.8	48.0	8.9 1985.*
9	58.6	14.8	66.1	18.9	77.0	25.0	1986.	51.2	10.7	48.0	8.9 1975.*
10	59.5	15.3	67.4	19.6	82.0	27.8	1959.	51.6	10.9	47.0	8.3 1967.
11	60.2	15.7	68.5	20.3	85.0	29.4	1972.	51.9	11.1	48.0	8.9 1986.*
12	60.0	15.6	67.8	19.9	100.0	37.8	1976.	52.3	11.3	46.0	7.8 1967.
13	59.8	15.4	67.3	19.6	90.0	32.2	1972.	52.3	11.3	47.0	8.3 1968.
14	59.9	15.5	67.9	19.9	83.0	28.3	1970.	51.9	11.1	46.0	7.8 1968.
15	60.6	15.9	69.2	20.7	94.0	34.4	1970.	52.0	11.1	45.0	7.2 1964.
16	60.8	16.0	69.4	20.8	89.0	31.7	1970.*	52.2	11.2	48.0	8.9 1988.*
17	60.5	15.8	68.8	20.4	83.0	28.3	1983.*	52.2	11.2	48.0	8.9 1988.*
18	59.7	15.4	67.3	19.6	86.0	30.0	1955.	52.2	11.2	47.0	8.3 1950.
19	60.6	15.9	68.4	20.2	89.0	31.7	1983.	52.8	11.6	48.0	8.9 1976.
20	59.4	15.2	66.8	19.3	80.0	26.7	1983.	52.0	11.1	49.0	9.4 1976.*
21	59.8	15.4	67.3	19.6	78.0	25.6	1952.	52.3	11.3	49.0	9.4 1967.*
22	60.2	15.6	67.9	19.9	82.0	27.8	1954.	52.5	11.4	47.0	8.3 1960.
23	59.9	15.5	67.1	19.5	86.0	30.0	1982.	52.6	11.4	49.0	9.4 1986.
24	60.2	15.6	67.7	19.6	84.0	28.9	1982.	52.6	11.5	48.0	8.9 1967.*
25	60.7	16.0	68.6	20.3	91.0	32.8	1951.	52.8	11.6	48.0	8.9 1967.*
26	60.6	15.9	68.1	20.0	88.0	31.1	1974.	53.1	11.7	49.0	9.4 1967.*
27	60.6	15.9	68.4	20.2	95.0	35.0	1984.	52.7	11.5	48.0	8.9 1967.
28	61.1	16.2	69.0	20.6	92.0	33.3	1975.	53.1	11.7	49.0	9.4 1976.*
29	61.3	16.3	69.4	20.8	96.0	35.6	1975.	53.2	11.8	49.0	9.4 1965.
30	61.3	16.3	69.2	20.6	92.0	33.3	1978.	53.4	11.9	48.0	8.9 1971.
31	61.0	16.1	68.7	20.4	87.0	30.6	1970.	53.3	11.8	46.0	7.8 1971.
MONTH	59.9	15.5	67.6	19.8	100.0	27.8	1976.	52.1	11.2	42.0	5.6 1964.

## NOTES :

T = TRACE AMOUNTS (&lt;.01, OR &lt;.5, OR &lt; 1.0 INCHES)

\* = VALUE OCCURRED IN PREVIOUS YEAR(S).

THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 29 - DAILY AVERAGE/EXTREME TEMPERATURES

Q23239 ALAMEDA, CA  
 PERIOD OF RECORD : 1945-1986  
 LAT. : 37 47N LONG. : 122 19W ELEV. : 15. FT  
 MONTH : JUN

MEAN TEMPERATURE		MAXIMUM TEMPERATURE		MINIMUM TEMPERATURE		EXTREME		EXTREME	
AVERAGE		AVERAGE		AVERAGE		AVERAGE		AVERAGE	
DAY	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DATE
1	61.4	16.3	69.2	20.7	84.0	28.9	53.6	12.0	49.0 9.4 1971.+
2	61.5	16.4	69.2	20.7	94.0	34.4	53.8	12.1	48.0 8.9 1966.
3	61.2	16.2	68.5	20.3	89.0	31.7	53.9	12.1	49.0 9.4 1966.
4	62.1	16.7	70.2	21.2	100.0	37.8	54.0	12.2	50.0 10.0 1976.+
5	62.3	16.8	70.1	21.2	85.0	29.4	54.5	12.5	49.0 9.4 1951.
6	62.0	16.6	69.2	20.7	85.0	29.4	54.7	12.6	50.0 10.0 1971.
7	61.5	16.4	68.9	20.5	89.0	31.7	54.1	12.3	50.0 10.0 1951.
8	61.6	16.4	68.9	20.5	91.0	36.1	54.3	12.4	50.0 10.0 1967.+
9	61.6	16.4	68.9	20.5	90.0	32.2	54.2	12.4	50.0 10.0 1967.+
10	62.0	16.6	69.6	20.9	88.0	31.1	54.3	12.4	50.0 10.0 1972.+
11	61.9	16.6	69.5	20.8	85.0	29.4	54.3	12.4	49.0 9.4 1965.
12	61.9	16.6	69.5	20.8	88.0	31.1	54.4	12.4	50.0 10.0 1967.+
13	62.6	17.0	70.7	21.5	96.0	35.6	54.4	12.4	50.0 10.0 1965.
14	63.6	17.5	72.0	22.2	100.0	37.8	55.2	12.9	50.0 10.0 1967.
15	63.8	17.7	72.2	22.3	94.0	34.4	55.4	13.0	50.0 10.0 1967.
16	63.2	17.3	71.6	22.0	86.0	30.0	54.7	12.6	49.0 9.4 1977.+
17	63.7	17.6	72.3	22.4	92.0	33.3	55.2	12.9	49.0 9.4 1967.
18	63.4	17.4	71.5	21.9	88.0	31.1	55.3	12.9	52.0 11.1 1972.+
19	63.0	17.2	70.9	21.6	91.0	32.8	55.1	12.8	51.0 10.6 1977.+
20	63.3	17.4	71.6	22.0	93.0	33.9	55.0	12.8	50.0 10.0 1964.
21	64.1	17.9	73.1	22.8	90.0	32.2	55.2	12.9	51.0 10.6 1975.+
22	64.0	17.8	72.5	22.5	94.0	34.4	55.4	13.0	51.0 10.6 1966.
23	62.7	17.1	70.5	21.4	100.0	37.8	55.0	12.8	50.0 10.0 1967.
24	63.5	17.5	71.9	22.1	99.0	37.2	55.1	12.8	50.0 10.0 1967.
25	63.2	17.3	71.3	21.8	96.0	35.6	55.1	12.8	51.0 10.6 1975.+
26	63.2	17.3	71.5	22.0	94.0	34.4	54.9	12.7	50.0 10.0 1967.
27	64.1	17.8	73.0	22.8	101.0	38.3	55.2	12.9	51.0 10.6 1967.+
28	63.2	17.3	71.3	21.9	91.0	32.8	55.1	12.8	52.0 11.1 1979.+
29	63.1	17.3	71.6	22.0	86.0	30.0	54.6	12.6	51.0 10.6 1949.
30	63.0	17.2	71.4	21.9	89.0	31.7	54.7	12.6	50.0 10.0 1969.
MONTH	62.7	17.1	70.8	21.5	101.0	38.3	54.7	12.6	48.0 8.9 1966.

NOTES :  
 T = TRACE AMOUNTS (<0.1, OR <0.5, OR < 1.0 INCHES)  
 + = VALUE OCCURRED IN PREVIOUS YEAR(S).  
 THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 29 - DAILY AVERAGE/EXTREME TEMPERATURES

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JUL

DAY	MEAN TEMPERATURE		MAXIMUM TEMPERATURE		DATE	MINIMUM TEMPERATURE		DATE
	AVERAGE DEG F	DEG C	AVERAGE DEG F	EXTREME DEG C		AVERAGE DEG F	EXTREME DEG C	
1	63.3	17.4	71.7	22.1	1985.	54.9	12.7	49.0 9.4 1969.
2	63.1	17.3	71.2	21.8	1970.	55.0	12.8	50.0 10.0 1969.+
3	62.6	17.0	70.6	21.4	1970.	54.7	12.6	49.0 9.4 1965.
4	62.7	17.0	70.8	21.6	1973.	54.5	12.5	48.0 8.9 1965.
5	62.6	17.0	70.5	21.4	1968.	54.6	12.5	48.0 8.9 1965.
6	62.3	16.8	70.1	21.2	1957.	54.5	12.5	48.0 8.9 1965.
7	62.4	16.9	70.0	21.1	1981.	54.7	12.6	50.0 10.0 1965.
8	63.5	17.5	71.8	22.1	1961.	55.2	12.9	51.0 10.6 1965.
9	63.9	17.7	72.3	22.4	1961.+	55.6	13.1	50.0 10.0 1965.
10	64.1	17.9	72.7	22.6	1959.	55.6	13.1	49.0 9.4 1965.
11	63.7	17.6	72.0	22.2	1983.	55.4	13.0	51.0 10.6 1965.
12	63.5	17.5	71.5	22.0	1983.	55.4	13.0	50.0 10.0 1965.
13	64.4	18.0	73.1	22.8	1972.	55.7	13.2	50.0 10.0 1965.
14	64.1	17.8	72.5	22.5	1972.	55.8	13.2	50.0 10.0 1965.
15	63.5	17.5	71.4	21.9	1957.	55.6	13.1	50.0 10.0 1965.
16	63.6	17.5	71.6	22.0	1978.	55.5	13.1	52.0 11.1 1965.+
17	63.4	17.4	70.9	21.6	1961.	55.9	13.3	53.0 11.7 1967.+
18	63.5	17.5	71.0	21.7	1968.	55.9	13.3	52.0 11.1 1967.+
19	63.3	17.4	71.0	21.7	1961.	55.6	13.1	51.0 10.6 1964.
20	63.1	17.3	70.5	21.4	1960.	55.7	13.1	51.0 10.6 1964.
21	62.9	17.2	70.3	21.3	1954.	55.5	13.1	50.0 10.0 1951.
22	63.3	17.4	70.8	21.5	1976.	55.9	13.3	52.0 11.1 1967.
23	63.0	17.2	70.2	21.2	1964.	55.8	13.2	52.0 11.1 1967.+
24	63.5	17.5	71.1	21.7	1974.	55.8	13.2	51.0 10.6 1967.
25	64.1	17.8	72.2	22.3	1973.	56.0	13.3	51.0 10.6 1967.
26	64.0	17.8	71.9	22.2	1963.	56.1	13.4	53.0 11.7 1969.+
27	63.4	17.4	70.8	21.5	1954.	56.0	13.3	53.0 11.7 1970.+
28	63.7	17.6	71.0	21.6	1954.	56.4	13.5	52.0 11.1 1970.+
29	63.3	17.4	70.6	21.5	1977.	55.9	13.3	52.0 11.1 1970.+
30	63.2	17.4	70.5	21.4	1977.	56.0	13.3	52.0 11.1 1970.
31	64.0	17.8	71.8	22.1	1966.	56.1	13.4	50.0 10.0 1970.
MONTH	63.4	17.4	71.2	21.8	1970.	55.5	13.1	48.0 8.9 1965.+

## NOTES :

T = TRACE AMOUNTS (&lt;.01, OR &lt;.5, OR &lt; 1.0 INCHES)

+ = VALUE OCCURRED IN PREVIOUS YEAR(S).

THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0



## 29 - DAILY AVERAGE/EXTREME TEMPERATURES

023239 ALAMEDA, CA. LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 PERIOD OF RECORD : 1945-1986 MONTH : AUG

MEAN TEMPERATURE				MAXIMUM TEMPERATURE				EXTREME				MINIMUM TEMPERATURE					
DAY	AVERAGE		I	AVERAGE		I	EXTREME		I	AVERAGE		I	EXTREME		I		
	DEG F	DEG C		DEG F	DEG C		DEG F	DEG C		DEG F	DEG C		DEG F	DEG C			
1	63.9	17.7	71.8	22.1	86.0	30.0	1975.	56.1	13.4	49.0	9.4	1970.	55.9	13.3	50.0	10.0	1967.
2	63.3	17.4	70.8	21.5	88.0	31.1	1946.	55.7	13.2	50.0	10.0	1967.	55.7	13.2	50.0	10.0	1967.
3	63.0	17.2	70.2	21.2	82.0	27.8	1985.+	55.8	13.2	49.0	9.4	1967.	55.7	13.1	50.0	10.0	1967.
4	62.9	17.1	70.0	21.1	87.0	30.6	1947.	55.7	13.1	50.0	10.0	1967.	56.5	13.6	52.0	11.1	1970.+
5	63.6	17.5	71.5	21.9	82.0	27.8	1964.	55.9	13.3	52.0	11.1	1969.+	56.0	13.3	52.0	11.1	1967.+
6	65.1	18.4	73.8	23.2	95.0	35.0	1983.	55.8	13.2	52.0	11.1	1973.+	55.7	13.1	50.0	10.0	1967.
7	64.3	17.9	72.3	22.4	93.0	33.9	1984.	56.1	13.4	50.0	10.0	1967.	56.2	13.5	52.0	11.1	1966.
8	63.8	17.7	71.8	22.1	86.0	30.0	1975.	56.5	13.6	52.0	11.1	1963.+	56.4	13.5	52.0	11.1	1966.
9	63.6	17.5	71.2	21.8	90.0	32.2	1970.	56.5	13.6	52.0	11.1	1963.+	56.4	13.5	52.0	11.1	1966.
10	63.0	17.2	70.2	21.2	84.0	28.9	1970.	56.5	13.6	52.0	11.1	1963.+	56.4	13.5	52.0	11.1	1966.
11	62.5	16.9	69.3	20.7	83.0	28.3	1959.	56.5	13.6	52.0	11.1	1963.+	56.4	13.5	52.0	11.1	1966.
12	63.5	17.5	70.9	21.6	89.0	31.7	1959.	56.5	13.6	52.0	11.1	1963.+	56.4	13.5	52.0	11.1	1966.
13	63.5	17.5	70.9	21.6	87.0	30.6	1965.	56.5	13.6	52.0	11.1	1963.+	56.4	13.5	52.0	11.1	1966.
14	63.4	17.5	70.8	21.5	84.0	28.9	1963.	56.5	13.6	52.0	11.1	1963.+	56.4	13.5	52.0	11.1	1966.
15	64.0	17.8	71.7	22.1	89.0	31.7	1950.	56.5	13.6	52.0	11.1	1963.+	56.4	13.5	52.0	11.1	1966.
16	64.2	17.9	71.9	22.2	84.0	28.9	1966.	56.5	13.6	52.0	11.1	1963.+	56.4	13.5	52.0	11.1	1966.
17	64.1	17.8	71.7	22.0	82.0	27.8	1966.	56.5	13.6	52.0	11.1	1963.+	56.4	13.5	52.0	11.1	1966.
18	64.0	17.8	71.6	22.0	86.0	30.0	1978.	56.5	13.6	52.0	11.1	1963.+	56.4	13.5	52.0	11.1	1966.
19	64.5	18.0	72.0	22.2	88.0	31.1	1964.	56.5	13.6	52.0	11.1	1963.+	56.4	13.5	52.0	11.1	1966.
20	64.5	18.0	72.1	22.3	82.0	27.8	1969.+	56.5	13.6	52.0	11.1	1963.+	56.4	13.5	52.0	11.1	1966.
21	64.3	17.9	72.0	22.2	85.0	29.4	1969.	56.5	13.6	52.0	11.1	1963.+	56.4	13.5	52.0	11.1	1966.
22	64.4	18.0	72.4	22.4	89.0	31.7	1959.	56.5	13.6	52.0	11.1	1963.+	56.4	13.5	52.0	11.1	1966.
23	64.5	18.1	72.4	22.4	86.0	30.0	1971.	56.5	13.6	52.0	11.1	1963.+	56.4	13.5	52.0	11.1	1966.
24	64.5	18.1	72.1	22.3	84.0	28.9	1959.	56.5	13.6	52.0	11.1	1963.+	56.4	13.5	52.0	11.1	1966.
25	64.2	17.9	71.6	22.0	84.0	28.9	1969.	56.5	13.6	52.0	11.1	1963.+	56.4	13.5	52.0	11.1	1966.
26	64.2	17.9	71.8	22.1	83.0	28.3	1963.	56.5	13.6	52.0	11.1	1963.+	56.4	13.5	52.0	11.1	1966.
27	64.7	18.1	72.7	22.6	90.0	32.2	1962.	56.5	13.6	52.0	11.1	1963.+	56.4	13.5	52.0	11.1	1966.
28	65.1	18.4	73.1	22.8	87.0	30.6	1965.	56.5	13.6	52.0	11.1	1963.+	56.4	13.5	52.0	11.1	1966.
29	65.3	18.5	73.4	23.0	102.0	38.9	1968.	56.5	13.6	52.0	11.1	1963.+	56.4	13.5	52.0	11.1	1966.
30	65.1	18.4	73.1	22.8	82.0	27.8	1976.+	56.5	13.6	52.0	11.1	1963.+	56.4	13.5	52.0	11.1	1966.
31	65.1	18.4	73.5	23.0	88.0	31.1	1947.	56.5	13.6	52.0	11.1	1963.+	56.4	13.5	52.0	11.1	1966.
MONTH	64.1	17.8	71.8	22.1	102.0	38.9	1968.	56.4	13.5	40.0	4.4	1972.	56.4	13.5	40.0	4.4	1972.

NOTES :  
 T = TRACE AMOUNTS (.01. OR <.5. OR < 1.0 INCHES)

+ = VALUE OCCURRED IN PREVIOUS YEAR(S).

THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

# 29 - DAILY AVERAGE/EXTREME TEMPERATURES

023239 ALAMEDA, CA PERIOD OF RECORD : 1945-1986 LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT MONTH : SEP

MEAN TEMPERATURE		MAXIMUM TEMPERATURE		EXTREME		DATE		AVERAGE		MINIMUM TEMPERATURE		EXTREME		DATE	
DAY	DEG F	DEG C	AVERAGE	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	AVERAGE	DEG F	DEG C	DEG F	DEG C	DATE
1	65.6	18.7	74.3	23.5	91.0	32.8	1955.	57.0	13.9	53.0	11.7	1970.+	53.0	11.7	1970.+
2	65.3	18.5	73.6	23.1	91.0	32.8	1950.	57.0	13.9	52.0	11.1	1970.+	52.0	11.1	1970.+
3	65.8	18.8	74.2	23.4	95.0	35.0	1961.	57.4	14.1	53.0	11.7	1970.+	53.0	11.7	1970.+
4	66.1	18.9	74.5	23.6	91.0	32.8	1961.	57.6	14.2	52.0	11.1	1973.	52.0	11.1	1973.
5	65.5	18.6	73.3	22.9	85.0	29.4	1974.+	57.6	14.2	54.0	12.2	1966.+	54.0	12.2	1966.+
6	65.7	18.7	73.9	23.3	88.0	31.1	1979.	57.5	14.2	54.0	12.2	1975.+	54.0	12.2	1975.+
7	66.3	19.0	74.7	23.7	91.0	32.8	1976.	57.8	14.4	52.0	11.1	1949.	52.0	11.1	1949.
8	66.0	18.9	74.3	23.5	98.0	36.7	1984.	57.6	14.2	53.0	11.7	1946.	53.0	11.7	1946.
9	65.8	18.8	74.1	23.4	92.0	33.3	1984.	57.5	14.1	52.0	11.1	1946.	52.0	11.1	1946.
10	65.4	18.6	73.4	23.0	91.0	32.8	1979.	57.4	14.1	51.0	10.6	1964.	51.0	10.6	1964.
11	65.6	18.7	73.9	23.3	100.0	37.8	1979.	57.3	14.0	51.0	10.6	1970.	51.0	10.6	1970.
12	65.5	18.6	73.8	23.2	100.0	37.8	1979.	57.3	14.0	50.0	10.0	1970.	50.0	10.0	1970.
13	65.3	18.5	73.2	22.9	102.0	38.9	1971.	57.4	14.1	53.0	11.7	1970.+	53.0	11.7	1970.+
14	65.8	18.8	74.0	23.3	106.0	41.1	1971.	57.6	14.2	51.0	10.6	1970.	51.0	10.6	1970.
15	65.7	18.7	74.0	23.3	96.0	35.6	1971.	57.5	14.1	51.0	10.6	1970.	51.0	10.6	1970.
16	65.3	18.5	73.1	22.8	97.0	36.1	1968.	57.6	14.2	53.0	11.7	1970.+	53.0	11.7	1970.+
17	65.4	18.6	73.3	22.9	90.0	32.2	1984.	57.6	14.2	53.0	11.7	1946.	53.0	11.7	1946.
18	65.5	18.6	73.3	22.9	93.0	33.9	1946.	57.6	14.2	52.0	11.1	1960.	52.0	11.1	1960.
19	66.0	18.9	74.5	23.6	93.0	33.9	1964.	57.5	14.2	52.0	11.1	1960.	52.0	11.1	1960.
20	65.8	18.8	74.5	23.6	93.0	33.9	1983.	57.0	13.9	52.0	11.1	1986.+	52.0	11.1	1986.+
21	66.5	19.2	75.8	24.3	90.0	32.2	1947.	57.3	14.1	52.0	11.1	1965.	52.0	11.1	1965.
22	66.3	19.1	75.5	24.2	94.0	34.4	1964.+	57.1	14.0	53.0	11.7	1969.+	53.0	11.7	1969.+
23	65.6	18.7	74.2	23.5	92.0	33.3	1964.	56.9	13.8	52.0	11.1	1960.+	52.0	11.1	1960.+
24	66.4	19.1	75.7	24.3	95.0	35.0	1964.	57.1	14.0	52.0	11.1	1949.	52.0	11.1	1949.
25	66.5	19.1	75.4	24.1	92.0	33.3	1968.	57.6	14.2	51.0	10.6	1948.	51.0	10.6	1948.
26	65.3	18.5	73.2	22.9	92.0	33.3	1970.+	57.4	14.1	51.0	10.6	1955.	51.0	10.6	1955.
27	65.6	18.7	73.6	23.1	92.0	33.3	1966.	57.6	14.2	50.0	10.0	1955.	50.0	10.0	1955.
28	65.9	18.9	74.4	23.6	91.0	32.8	1966.	57.5	14.1	52.0	11.1	1986.+	52.0	11.1	1986.+
29	65.4	18.6	73.8	23.2	91.0	32.8	1978.	57.0	13.9	52.0	11.1	1952.+	52.0	11.1	1952.+
30	65.1	18.4	73.8	23.2	92.0	33.3	1980.	56.3	13.5	50.0	10.0	1950.	50.0	10.0	1950.
MONTH	65.7	18.7	74.1	23.4	106.0	41.1	1971.	57.4	14.1	50.0	10.0	1970.+	50.0	10.0	1970.+

NOTES :  
T = TRACE AMOUNTS (<.01, OR <.5, OF X 1.0 INCHES)  
+ = VALUE OCCURRED IN PREVIOUS YEAR(S).  
THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 29 - DAILY AVERAGE/EXTREME TEMPERATURES

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : OCT

MEAN TEMPERATURE				MAXIMUM TEMPERATURE				MINIMUM TEMPERATURE			
AVERAGE		AVERAGE		AVERAGE		AVERAGE		AVERAGE		AVERAGE	
DAY	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DATE
1	65.3	18.5	73.8	23.2	95.0	35.0	198.0	56.8	13.8	48.0	8.9 1950.
2	65.2	18.4	73.8	23.2	98.0	36.7	198.0	56.6	13.7	50.0	10.0 1946.
3	65.2	18.5	74.3	23.5	101.0	38.3	1985.	56.2	13.4	52.0	11.1 1965.+
4	64.3	18.0	72.7	22.6	90.0	32.2	1985.	55.9	13.3	50.0	10.0 1949.
5	64.2	17.9	72.2	22.4	86.0	30.0	1953.	56.2	13.4	52.0	11.1 1970.+
6	64.2	17.9	72.4	22.4	87.0	30.6	1976.	56.0	13.3	50.0	10.0 1949.
7	64.2	17.9	72.6	22.6	88.0	31.1	1951.	55.9	13.3	50.0	10.0 1970.
8	64.5	18.1	72.6	22.6	86.0	30.0	1959.	56.4	13.5	52.0	11.1 1973.+
9	63.8	17.6	71.5	22.0	89.0	31.7	1966.	56.0	13.3	53.0	11.7 1986.+
10	63.8	17.7	71.5	22.0	85.0	29.4	1950.+	56.1	13.4	49.0	9.4 1968.
11	63.8	17.6	71.3	21.8	87.0	30.6	1946.	56.2	13.5	51.0	10.6 1970.+
12	64.7	18.2	73.4	23.0	91.0	32.8	1971.	56.0	13.3	51.0	10.6 1981.
13	64.8	18.2	73.5	23.0	90.0	32.2	1978.	56.2	13.4	52.0	11.1 1981.+
14	63.4	17.4	71.3	21.6	90.0	32.2	1954.	55.5	13.1	50.0	10.0 1966.
15	63.1	17.3	71.0	21.6	90.0	32.2	1961.	55.3	12.9	49.0	9.4 1966.
16	63.3	17.4	71.4	21.9	88.0	31.1	1974.	55.3	12.9	50.0	10.0 1984.+
17	62.7	17.0	70.5	21.4	86.0	30.0	1974.+	54.8	12.7	50.0	10.0 1984.+
18	61.9	16.6	69.2	20.7	82.0	27.8	1966.	54.6	12.6	47.0	8.3 1949.
19	62.0	16.7	69.3	20.7	84.0	28.9	1964.	54.8	12.6	48.0	8.9 1949.
20	62.2	16.8	69.8	21.0	85.0	29.4	1964.	54.6	12.6	44.0	6.7 1949.
21	62.3	16.9	70.3	21.3	85.0	29.4	1965.+	54.4	12.4	46.0	7.8 1949.
22	62.0	16.6	69.6	20.9	85.0	29.4	1965.	54.3	12.4	48.0	8.9 1966.+
23	62.2	16.8	69.7	20.9	95.0	29.4	1968.+	54.7	12.6	47.0	8.3 1949.
24	63.1	17.3	71.0	21.7	89.0	31.7	1965.	55.2	12.9	47.0	8.3 1956.
25	61.7	16.5	69.1	20.6	84.0	28.9	1968.	54.3	12.4	48.0	8.9 1949.
26	61.5	16.4	68.6	20.4	85.0	29.4	1968.	54.3	12.4	48.0	8.9 1949.
27	61.2	16.2	68.6	20.3	84.0	28.9	1983.	53.7	12.1	47.0	8.3 1946.
28	60.8	16.0	68.4	20.2	73.0	25.6	1983.	53.3	11.8	44.0	6.7 1946.
29	61.4	16.3	69.0	20.5	82.0	27.8	1955.	53.7	12.1	47.0	8.3 1971.+
30	61.0	16.1	68.4	20.2	82.0	27.8	1969.+	53.5	12.0	44.0	6.7 1946.
31	61.0	16.1	69.3	20.7	90.0	32.2	1966.	52.8	11.6	47.0	8.3 1956.
MONTH	63.1	17.3	71.0	21.7	101.0	38.3	1985.	55.1	12.9	44.0	6.7 1949.+

## NOTES :

T = TRAIL AMOUNTS (&lt;.01, 0.0 &lt;.5, 0.5 &lt; 1.0 INCHES)

+ = VALUE OCCURRED IN PREVIOUS YEAR(S).

THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 29 - DAILY AVERAGE/EXTREME TEMPERATURES

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : NOV

MEAN TEMPERATURE		MAXIMUM TEMPERATURE		MINIMUM TEMPERATURE			
AVERAGE		AVERAGE		AVERAGE		EXTREME	
DAY	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DATE
1	60.5	15.8	67.8	19.9	82.0	27.8	1967.+
2	61.2	16.2	69.1	20.6	83.0	28.3	1967.
3	60.5	15.8	67.5	19.7	85.0	29.4	1950.
4	60.7	15.9	68.0	20.0	72.0	26.1	1980.
5	59.9	15.5	66.8	19.4	77.0	25.0	1961.+
6	59.9	15.5	67.0	19.4	76.0	24.4	1985.+
7	59.4	15.2	66.3	19.1	83.0	28.3	1955.
8	59.6	15.4	66.7	19.3	81.0	27.2	1955.
9	58.6	14.8	65.1	18.4	78.0	25.6	1950.
10	58.6	14.8	65.0	18.3	78.0	25.6	1955.
11	57.9	14.4	64.2	17.9	75.0	23.9	1986.+
12	57.4	14.1	63.5	17.5	78.0	25.6	1986.
13	56.6	13.7	62.3	16.9	72.0	22.2	1969.
14	56.2	13.4	61.8	16.6	72.0	22.2	1970.
15	56.1	13.4	61.5	16.4	70.0	21.1	1949.
16	56.3	13.5	62.1	16.7	73.0	22.8	1967.
17	56.0	13.3	62.4	16.9	72.0	22.2	1956.
18	56.0	13.3	62.2	16.8	72.0	22.2	1971.
19	55.6	13.1	61.7	16.5	70.0	21.1	1949.
20	55.1	12.9	61.3	16.3	71.0	21.7	1959.
21	54.8	12.7	61.1	16.2	71.0	21.7	1957.
22	54.9	12.7	60.7	16.0	75.0	23.9	1959.
23	55.0	12.8	61.2	16.2	73.0	22.8	1959.
24	55.3	12.9	61.6	16.4	75.0	23.9	1959.
25	54.7	12.6	61.2	16.2	77.0	25.0	1975.
26	54.8	12.6	61.3	16.3	74.0	23.3	1959.
27	54.3	12.4	60.3	15.7	72.0	22.2	1969.+
28	54.5	12.5	60.8	16.0	72.0	22.2	1969.
29	53.9	12.2	60.0	15.5	73.0	22.8	1969.
30	54.2	12.3	60.0	15.6	70.0	21.1	1977.
MONTH	56.9	13.9	63.3	17.4	85.0	29.4	1950.
					50.5	10.3	
							38.0
							3.3
							1952.

NOTES :

T = TRACE AMOUNTS (&lt;.01, OR &lt;.5, OR &lt; 1.0 INCHES)

+ = VALUE OCCURRED IN PREVIOUS YEAR(S).

THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 29 - DAILY AVERAGE/EXTREME TEMPERATURES

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : DEC

MEAN TEMPERATURE		MAXIMUM TEMPERATURE		MINIMUM TEMPERATURE		AVERAGE		EXTREME		DATE		AVERAGE		EXTREME		DATE	
DAY	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DATE	DEG F	DEG C	DEG F	DEG C	DATE	DEG F
1	54.0	12.2	59.7	15.4	71.0	21.7	48.4	9.1	43.0	6.1	1959.	48.4	9.1	43.0	6.1	1976.	43.0
2	53.7	12.1	59.5	15.3	69.0	20.6	48.0	8.9	43.0	6.1	1969.+	48.0	8.9	43.0	6.1	1976.+	43.0
3	54.0	12.2	59.8	15.4	72.0	22.2	48.3	9.0	42.0	5.6	1958.	48.3	9.0	42.0	5.6	1965.+	42.0
4	53.2	11.8	58.6	14.8	70.0	21.1	47.9	8.8	40.0	4.4	1959.	47.9	8.8	40.0	4.4	1963.	40.0
5	53.0	11.7	58.4	14.6	68.0	20.0	47.7	8.7	36.0	2.2	1959.	47.7	8.7	36.0	2.2	1972.	36.0
6	52.5	11.4	58.1	14.5	68.0	20.0	46.8	8.2	39.0	3.9	1979.	46.8	8.2	39.0	3.9	1972.	39.0
7	52.6	11.5	58.5	14.7	67.0	19.4	46.8	8.2	38.0	3.3	1979.	46.8	8.2	38.0	3.3	1972.	38.0
8	52.2	11.2	58.0	14.4	68.0	20.0	46.3	7.9	29.0	-1.7	1975.	46.3	7.9	29.0	-1.7	1972.	29.0
9	51.8	11.0	57.6	14.2	65.0	18.3	46.0	7.8	27.0	-2.8	1984.+	46.0	7.8	27.0	-2.8	1972.	27.0
10	51.5	10.8	56.9	13.8	68.0	20.0	46.1	7.8	30.0	-1.1	1958.	46.1	7.8	30.0	-1.1	1972.	30.0
11	51.7	10.9	57.4	14.1	71.0	21.7	46.0	7.8	31.0	-6	1958.	46.0	7.8	31.0	-6	1972.	31.0
12	50.9	10.5	56.6	13.7	72.0	22.2	45.1	7.3	34.0	1.1	1958.	45.1	7.3	34.0	1.1	1972.	34.0
13	50.6	10.3	56.0	13.3	71.0	21.7	45.2	7.3	32.0	.0	1958.	45.2	7.3	32.0	.0	1972.	32.0
14	50.8	10.4	56.2	13.4	66.0	18.9	45.4	7.5	32.0	.0	1958.	45.4	7.5	32.0	.0	1972.	32.0
15	50.9	10.5	56.0	13.3	66.0	18.9	45.8	7.7	34.0	1.1	1980.	45.8	7.7	34.0	1.1	1971.	34.0
16	50.9	10.5	56.6	13.7	66.0	18.9	45.2	7.3	34.0	1.1	1958.+	45.2	7.3	34.0	1.1	1971.	34.0
17	51.7	10.9	57.6	14.2	66.0	18.9	45.7	7.6	36.0	2.2	1958.+	45.7	7.6	36.0	2.2	1965.	36.0
18	51.2	10.6	56.3	13.5	64.0	17.8	46.0	7.8	37.0	2.8	1958.	46.0	7.8	37.0	2.8	1971.	37.0
19	50.9	10.5	55.8	13.2	64.0	17.8	46.0	7.8	35.0	1.7	1950.	46.0	7.8	35.0	1.7	1971.	35.0
20	50.3	10.2	55.2	12.9	65.0	18.3	45.5	7.5	35.0	1.7	1969.	45.5	7.5	35.0	1.7	1967.	35.0
21	50.1	10.1	55.2	12.9	62.0	16.7	45.1	7.3	34.0	1.1	1981.+	45.1	7.3	34.0	1.1	1965.	34.0
22	50.5	10.3	55.9	13.3	64.0	17.8	45.1	7.3	37.0	2.8	1953.	45.1	7.3	37.0	2.8	1978.+	37.0
23	50.2	10.1	55.4	13.0	64.0	17.8	45.0	7.2	34.0	1.1	1946.	45.0	7.2	34.0	1.1	1948.	34.0
24	50.7	10.4	55.9	13.3	64.0	17.8	45.5	7.5	32.0	.0	1969.+	45.5	7.5	32.0	.0	1948.	32.0
25	50.6	10.3	55.6	13.1	67.0	19.4	45.5	7.5	38.0	3.3	1967.	45.5	7.5	38.0	3.3	1984.+	38.0
26	50.2	10.1	55.2	12.9	64.0	17.8	45.1	7.3	35.0	1.7	1967.	45.1	7.3	35.0	1.7	1985.	35.0
27	50.1	10.0	55.4	13.0	70.0	21.1	44.8	7.1	36.0	2.2	1967.+	44.8	7.1	36.0	2.2	1985.+	36.0
28	50.2	10.1	55.7	13.2	73.0	22.8	44.7	7.1	36.0	2.2	1967.	44.7	7.1	36.0	2.2	1971.+	36.0
29	50.3	10.2	55.6	13.1	64.0	17.8	44.9	7.2	39.0	3.9	1967.	44.9	7.2	39.0	3.9	1978.+	39.0
30	50.0	10.0	55.5	13.0	64.0	17.8	44.5	7.0	36.0	2.2	1966.+	44.5	7.0	36.0	2.2	1978.	36.0
31	49.0	9.5	54.6	12.6	65.0	18.3	43.5	6.4	36.0	2.2	1958.	43.5	6.4	36.0	2.2	1978.	36.0
MONTH	51.3	10.7	56.7	13.7	73.0	22.8	45.9	7.7	27.0	-2.8	1967.	45.9	7.7	27.0	-2.8	1972.	27.0

## NOTES :

T = TRACE AMOUNTS (&lt;.01. OP &lt;.5. OR &lt; 1.0 INCHES)

+ = VALUE OCCURRED IN PREVIOUS YEAR(S).

THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

# 30 - EXTREME VALUES

## MAXIMUM TEMPERATURE (DEG F) (FROM DAILY OBS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PAGE : 1

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1945	MISS	MISS	74	82	69	87	82	81	86	82	79	63	PART
1946	66	65	73	87	80	88	82	88	93	87	68	64	93
1947	60	74	76	92	87	90	80	88	90	86	PART	69	PART
1948	72	70	PART	73	76	89	88	85	89	83	74	62	PART
1949	62	61	70	77	89	100	78	78	94	83	76	68	100
1950	62	67	77	83	91	84	80	89	91	85	85	66	91
1951	63	68	78	70	91	83	84	82	92	88	75	64	92
1952	61	67	84	91	85	82	83	82	89	90	78	63	90
1953	68	69	78	75	85	92	84	85	90	88	70	70	92
1954	62	76	76	82	82	87	90	82	94	90	71	63	94
1955	63	66	77	69	86	90	76	84	91	82	83	63	91
1956	62	68	71	77	89	89	76	78	88	76	78	68	89
1957	63	68	69	84	83	94	84	85	90	75	71	63	94
1958	68	69	68	83	87	84	76	84	91	87	74	72	91
1959	65	71	80	81	86	95	95	89	88	88	75	71	95
1960	63	67	80	81	79	94	83	81	88	85	74	65	94
1961	63	70	74	84	74	100	92	79	95	90	77	63	100
1962	69	66	70	81	80	90	75	90	84	80	79	65	90
1963	63	72	70	70	77	76	90	84	92	78	69	62	92
1964	64	76	77	84	73	87	89	88	95	86	73	63	95
1965	60	70	76	84	78	83	75	87	86	89	73	60	89
1966	68	64	86	88	80	96	89	84	92	90	82	64	96
1967	66	70	69	60	82	74	83	82	92	89	83	73	92
1968	72	76	80	82	75	85	91	102	97	85	68	60	102
1969	60	65	70	78	83	80	91	85	85	87	81	69	87
1970	65	73	79	77	94	83	101	90	92	89	72	66	101
1971	64	69	72	74	73	85	83	86	106	91	74	60	106
1972	57	63	82	78	90	89	100	80	82	85	67	61	100
1973	61	65	66	77	87	97	91	82	91	80	66	61	97
1974	71	63	70	79	88	85	88	82	90	88	70	63	90
1975	67	68	70	69	96	80	89	86	93	81	77	69	96
1976	71	73	75	75	100	101	81	85	93	87	76	67	101
1977	63	74	72	79	76	84	87	89	82	82	70	62	89
1978	62	67	77	79	92	81	83	86	92	90	76	61	92
1979	59	65	72	69	85	89	84	79	100	80	68	68	100
1980	68	68	71	80	73	89	83	83	92	98	79	66	98
1981	65	74	70	90	81	91	89	89	83	85	73	63	91
1982	65	70	71	80	86	75	80	93	87	86	76	66	93
1983	62	68	68	71	80	85	93	95	96	84	71	64	96
1984	72	69	77	83	95	82	91	93	98	80	72	65	98
1985	61	79	75	84	78	89	94	82	85	101	78	65	101
1986	68	76	78	83	80	90	81	77	79	82	78	65	90

MEAN 64.5 69.2 74.5 78.9 83.5 87.2 85.4 85.2 90.4 85.7 74.6 64.9 94.6  
S.D. 3.822 4.134 4.675 6.376 7.096 6.285 6.412 5.000 5.232 5.088 4.711 3.300 4.553

# 30 - EXTREME VALUES

MAXIMUM TEMPERATURE (DEG F)  
(FROM DAILY OBS)

023239 ALAMEDA, CA      LAT. : 37 47N    LONG. : 122 19W    ELEV. : 15 FT  
PERIOD OF RECORD : 1945-1986      PAGE : 1

## YEAR/MONTHS WITH < FULL NUMBER OF OBSERVATIONS

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL MAX TEMP # DAYS
1947											69.	29	
1948													MAX TEMP # DAYS

74.  
30

# 31 - EXTREME VALUES

## MINIMUM TEMPERATURE (DEG.F) (FROM DAILY OBS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PAGE : 1

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1945	MISS	MISS	41	44	49	50	54	53	52	52	43	38	MISS
1946	38	38	41	45	50	51	53	54	52	44	44	40	38
1947	35	42	45	48	51	53	52	54	53	51	PART	40	MISS
1948	40	38	PART	44	45	54	54	54	51	45	42	32	MISS
1949	30	34	42	46	49	51	50	52	52	44	48	37	30
1950	32	34	42	45	44	50	52	54	50	48	48	43	32
1951	38	38	40	46	50	49	50	53	54	50	43	37	37
1952	34	41	40	47	45	50	54	52	52	51	38	40	34
1953	41	44	38	43	48	52	51	55	54	50	45	42	38
1954	38	42	41	46	50	51	52	52	53	51	42	38	38
1955	38	40	41	43	49	49	52	51	50	50	42	40	38
1956	40	38	39	44	50	52	52	53	55	47	44	38	38
1957	35	38	45	49	52	52	54	54	54	53	45	41	35
1958	41	45	43	44	49	55	54	57	54	53	40	45	40
1959	40	40	46	50	48	52	54	56	55	53	47	41	40
1960	36	44	43	45	47	52	53	53	52	52	43	38	36
1961	34	45	44	44	48	53	54	53	52	48	41	39	34
1962	33	36	43	48	50	53	53	53	53	53	43	39	33
1963	36	49	41	43	48	52	54	52	54	50	44	36	36
1964	40	38	40	44	42	50	51	53	51	50	42	38	38
1965	37	42	44	43	46	49	48	52	52	51	44	34	34
1966	35	38	36	48	48	48	51	51	52	48	42	36	35
1967	38	42	44	38	45	49	51	49	55	51	47	35	35
1968	31	40	49	44	46	51	53	58	53	49	42	35	31
1969	37	43	43	46	45	50	49	52	52	52	42	40	37
1970	40	45	43	44	47	52	50	49	50	49	48	42	40
1971	35	37	37	40	46	49	52	55	54	47	47	34	34
1972	32	37	42	44	48	50	53	40	54	49	47	27	27
1973	40	46	46	48	50	53	51	51	52	52	45	44	40
1974	38	45	44	49	49	51	54	54	54	52	46	42	38
1975	38	44	39	43	46	51	52	53	51	50	43	40	38
1976	39	38	40	40	48	50	54	54	53	49	42	38	38
1977	37	42	43	44	47	49	52	55	54	51	40	44	37
1978	44	44	48	46	49	52	52	52	54	49	41	36	36
1979	38	39	44	46	50	52	54	54	57	52	43	42	38
1980	39	46	45	48	50	52	54	56	56	51	45	41	39
1981	40	44	46	47	50	53	53	54	55	51	47	44	40
1982	38	42	44	43	50	51	54	55	56	53	43	41	38
1983	40	43	47	47	49	54	56	59	59	55	45	44	40
1984	42	44	49	48	52	52	52	56	57	50	45	38	38
1985	40	40	44	48	48	52	53	55	56	50	41	35	35
1986	44	43	44	45	47	52	54	53	52	53	45	42	42
MEAN	37.6	41.2	42.8	45.2	48.1	51.2	52.5	53.2	53.4	50.2	43.8	39.0	36.5
S.D.	3.263	3.478	2.999	2.565	2.184	1.581	1.642	2.896	2.010	2.425	2.427	3.669	3.111



MINIMUM TEMPERATURE (DEG F)  
(FROM DAILY OBS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PAGE : 1

YEAR/MONTHS WITH < FULL NUMBER OF OBSERVATIONS	1980-1981	1981-1982	1982-1983	1983-1984	1984-1985	1985-1986	1986-1987	1987-1988	1988-1989	1989-1990	1990-1991	1991-1992	1992-1993	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031	2031-2032	2032-2033	2033-2034	2034-2035	2035-2036	2036-2037	2037-2038	2038-2039	2039-2040	2040-2041	2041-2042	2042-2043	2043-2044	2044-2045	2045-2046	2046-2047	2047-2048	2048-2049	2049-2050	2050-2051	2051-2052	2052-2053	2053-2054	2054-2055	2055-2056	2056-2057	2057-2058	2058-2059	2059-2060	2060-2061	2061-2062	2062-2063	2063-2064	2064-2065	2065-2066	2066-2067	2067-2068	2068-2069	2069-2070	2070-2071	2071-2072	2072-2073	2073-2074	2074-2075	2075-2076	2076-2077	2077-2078	2078-2079	2079-2080	2080-2081	2081-2082	2082-2083	2083-2084	2084-2085	2085-2086	2086-2087	2087-2088	2088-2089	2089-2090	2090-2091	2091-2092	2092-2093	2093-2094	2094-2095	2095-2096	2096-2097	2097-2098	2098-2099	2099-2100	2100-2101	2101-2102	2102-2103	2103-2104	2104-2105	2105-2106	2106-2107	2107-2108	2108-2109	2109-2110	2110-2111	2111-2112	2112-2113	2113-2114	2114-2115	2115-2116	2116-2117	2117-2118	2118-2119	2119-2120	2120-2121	2121-2122	2122-2123	2123-2124	2124-2125	2125-2126	2126-2127	2127-2128	2128-2129	2129-2130	2130-2131	2131-2132	2132-2133	2133-2134	2134-2135	2135-2136	2136-2137	2137-2138	2138-2139	2139-2140	2140-2141	2141-2142	2142-2143	2143-2144	2144-2145	2145-2146	2146-2147	2147-2148	2148-2149	2149-2150	2150-2151	2151-2152	2152-2153	2153-2154	2154-2155	2155-2156	2156-2157	2157-2158	2158-2159	2159-2160	2160-2161	2161-2162	2162-2163	2163-2164	2164-2165	2165-2166	2166-2167	2167-2168	2168-2169	2169-2170	2170-2171	2171-2172	2172-2173	2173-2174	2174-2175	2175-2176	2176-2177	2177-2178	2178-2179	2179-2180	2180-2181	2181-2182	2182-2183	2183-2184	2184-2185	2185-2186	2186-2187	2187-2188	2188-2189	2189-2190	2190-2191	2191-2192	2192-2193	2193-2194	2194-2195	2195-2196	2196-2197	2197-2198	2198-2199	2199-2200	2200-2201	2201-2202	2202-2203	2203-2204	2204-2205	2205-2206	2206-2207	2207-2208	2208-2209	2209-2210	2210-2211	2211-2212	2212-2213	2213-2214	2214-2215	2215-2216	2216-2217	2217-2218	2218-2219	2219-2220	2220-2221	2221-2222	2222-2223	2223-2224	2224-2225	2225-2226	2226-2227	2227-2228	2228-2229	2229-2230	2230-2231	2231-2232	2232-2233	2233-2234	2234-2235	2235-2236	2236-2237	2237-2238	2238-2239	2239-2240	2240-2241	2241-2242	2242-2243	2243-2244	2244-2245	2245-2246	2246-2247	2247-2248	2248-2249	2249-2250	2250-2251
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[illegible]

# 32 - YEAR/MONTH VALUES

HEATING DEGREE DAYS (BASE 65 DEG F)  
(FROM DAILY OBS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PAGE : 1

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1945	MISS	MISS	364	187	189	68	40	68	33	71	278	390	MISS
1946	443	401	317	216	175	67	31	83	40	126	317	436	2652
1947	559	308	225	134	79	31	29	15	25	61	MISS	439	MISS
1948	346	384	MISS	267	164	46	46	34	45	89	234	523	MISS
1949	648	473	322	163	142	59	79	50	37	148	170	462	2753
1950	586	358	314	178	185	110	60	40	40	64	143	344	2422
1951	458	347	289	281	136	132	109	82	61	80	241	462	2678
1952	525	348	359	194	127	130	48	69	28	123	271	419	2641
1953	337	284	295	246	154	82	61	35	9	72	236	324	2135
1954	434	306	363	145	139	83	54	99	33	65	249	461	2431
1955	528	352	263	294	138	116	92	112	81	109	272	365	2722
1956	424	381	288	227	128	66	74	48	19	122	205	420	2402
1957	514	309	281	157	114	73	34	35	7	53	237	421	2185
1958	394	237	334	173	82	2	36	7	8	57	203	273	1806
1959	356	318	162	117	125	44	32	23	15	29	173	352	1746
1960	442	280	217	183	120	56	51	75	71	83	275	424	2297
1961	507	243	287	165	167	52	46	14	30	96	258	459	2324
1962	448	362	331	146	166	96	78	34	79	85	188	391	2404
1963	510	178	287	259	148	75	41	70	11	45	276	515	2415
1964	473	330	360	285	265	116	78	34	41	67	284	366	2699
1965	454	344	287	236	213	139	143	57	67	55	197	544	2736
1966	505	404	348	129	217	100	88	85	28	77	242	438	2661
1967	443	251	296	461	237	221	134	78	10	35	134	471	2771
1968	563	259	154	190	250	78	55	6	5	54	272	485	2371
1969	523	362	305	250	188	88	88	27	62	70	175	263	2401
1970	310	214	185	274	153	105	104	141	44	169	222	373	2294
1971	502	414	399	371	228	127	74	25	27	161	253	591	3172
1972	634	420	277	259	158	138	92	96	35	106	282	577	3074
1973	432	274	322	161	169	81	88	126	50	94	287	377	2461
1974	430	321	295	224	223	116	68	53	51	66	246	411	2504
1975	424	319	359	366	193	144	100	73	86	123	285	394	2866
1976	418	335	364	269	173	81	26	14	61	82	182	408	2413
1977	498	275	352	206	232	136	106	51	50	109	226	341	2584
1978	344	294	191	246	115	99	81	48	10	98	322	543	2391
1979	485	366	287	226	118	107	47	86	1	41	231	338	2288
1980	387	228	258	194	204	121	56	86	50	76	195	366	2221
1981	374	225	269	202	137	38	92	41	24	107	156	308	1973
1982	500	259	310	210	164	130	61	26	8	46	272	383	2369
1983	435	243	249	198	132	77	20	0	0	2	214	315	1839
1984	356	293	164	196	72	77	32	27	2	104	256	434	2022
1985	474	263	339	154	176	40	56	23	14	87	309	488	2429
1986	330	228	176	183	147	55	53	74	70	90	165	425	1996

# 33 - YEAR/MONTH VALUES

COOLING DEGREE DAYS (BASE 65 DEG F)  
(FROM DAILY OBS)

023239 ALAMEDA, CA LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PERIOD OF RECORD : 1945-1986 PAGE : 1

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1945	MISS	MISS	0	10	0	68	15	15	56	9	6	0	MISS
1946	0	0	0	8	2	14	32	16	72	32	0	0	176
1947	0	0	0	41	13	68	33	58	57	33	MISS	0	MISS
1948	0	0	MISS	0	1	16	24	43	25	23	0	0	MISS
1949	0	0	0	0	19	44	2	14	61	14	0	0	154
1950	0	0	0	9	13	10	9	43	63	25	21	0	194
1951	0	0	1	0	16	8	10	7	39	35	0	0	117
1952	0	0	2	3	20	5	18	13	55	20	0	0	149
1953	0	0	15	0	15	21	10	23	58	33	0	0	160
1954	0	0	0	8	4	15	35	20	53	13	0	0	148
1955	0	0	0	0	20	16	0	18	35	12	11	0	112
1956	0	0	0	0	13	36	1	11	53	3	2	0	119
1957	0	0	0	14	4	65	45	25	81	8	0	0	242
1958	0	0	0	11	19	51	9	47	159	38	3	0	337
1959	0	0	5	7	9	29	45	60	51	95	2	0	303
1960	0	0	6	8	7	48	12	11	34	19	0	0	145
1961	0	0	0	16	0	46	69	39	77	45	0	0	292
1962	0	0	0	11	3	26	0	45	19	13	3	0	120
1963	0	0	0	0	3	3	32	14	65	19	0	0	136
1964	0	0	0	3	0	13	27	30	87	32	0	0	192
1965	0	0	0	5	0	4	0	34	22	60	2	0	127
1966	0	0	5	28	0	33	11	20	50	34	5	0	187
1967	0	0	0	0	7	0	11	12	70	61	8	0	169
1968	0	0	6	5	0	20	31	104	111	40	0	0	318
1969	0	0	3	1	3	4	5	55	32	29	4	0	136
1970	0	0	4	0	41	6	40	19	96	13	0	0	219
1971	0	0	0	0	0	13	18	48	128	25	0	0	232
1972	0	0	2	0	21	14	40	14	24	22	0	0	137
1973	0	0	0	2	11	76	22	4	47	15	0	0	177
1974	0	0	0	2	8	13	30	26	38	49	0	0	166
1975	0	0	0	0	33	3	21	32	36	9	0	0	134
1976	0	0	0	0	26	105	11	55	42	41	2	0	282
1977	0	0	0	1	0	12	26	29	29	14	0	0	111
1978	0	0	4	1	39	2	11	31	98	46	0	0	232
1979	0	0	0	0	23	32	27	30	140	30	0	0	282
1980	0	0	0	4	0	16	37	7	43	51	6	0	164
1981	0	0	0	21	3	94	28	22	25	8	0	0	201
1982	0	0	0	9	12	5	13	37	82	50	0	0	208
1983	0	0	0	0	22	30	69	111	167	87	0	0	486
1984	0	0	0	5	42	20	71	41	174	18	0	0	371
1985	0	6	0	20	2	30	47	32	36	45	4	0	222
1986	0	0	2	5	1	22	18	3	2	32	8	0	93

# 34 - YEAR/MONTH VALUES

MEAN TEMPERATURE (DEG F)  
(FROM DAILY OBS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 10W ELEV. : 15 FT  
PAGE : 1

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1945	MISS	MISS	53.2	59.0	58.9	65.0	64.1	63.2	65.7	63.0	55.9	52.4	MISS
1946	50.7	50.6	54.7	58.0	59.4	63.2	65.0	62.8	66.0	61.9	54.4	50.9	58.1
1947	46.9	54.0	57.7	61.8	62.8	66.2	65.1	66.3	66.0	64.0	55.1P	50.8	MISS
1948	53.8	51.2	53.5P	56.0	59.7	64.0	64.2	65.2	64.3	62.8	57.1	48.1	MISS
1949	44.0	48.1	54.6	59.5	61.0	64.5	62.5	63.8	65.7	60.6	59.3	50.0	57.8
1950	46.0	52.2	54.9	59.3	59.4	61.8	63.3	65.0	65.7	63.7	60.9	53.9	58.8
1951	50.2	52.6	55.7	55.6	61.1	60.8	61.8	62.5	64.2	63.5	56.9	50.0	57.9
1952	48.0	52.5	53.9	58.6	61.5	60.8	64.0	63.1	65.8	61.6	55.9	51.4	58.1
1953	54.1	54.8	55.4	56.7	60.5	62.9	63.3	64.6	66.6	63.7	57.1	54.5	59.5
1954	51.0	54.0	53.2	60.4	60.6	62.7	64.3	62.4	65.6	63.3	56.6	50.1	58.7
1955	47.9	52.4	56.5	55.1	61.1	61.6	62.0	61.9	63.4	61.8	56.2	53.2	57.8
1956	51.3	51.3	55.7	57.4	61.2	64.0	62.6	63.8	66.1	61.1	58.2	51.4	58.7
1957	48.4	53.9	55.9	60.2	61.4	66.3	65.3	64.6	67.4	63.5	57.0	51.4	59.6
1958	52.2	56.5	54.2	59.5	62.9	66.6	64.1	66.2	70.0	64.3	58.3	56.1	60.9
1959	53.5	53.6	59.9	61.3	61.2	64.5	65.4	66.1	66.1	67.1	59.2	53.6	61.0
1960	50.7	55.0	57.5	59.1	61.3	64.7	63.7	62.9	63.7	62.9	55.8	51.3	59.0
1961	48.6	56.3	55.7	60.0	59.6	64.7	65.7	65.8	66.5	63.3	56.3	50.1	59.4
1962	50.5	52.0	54.3	60.5	59.7	62.6	62.4	65.3	63.0	62.6	58.8	52.3	58.7
1963	48.5	58.6	55.7	56.3	60.3	62.5	64.7	63.1	66.7	64.1	55.7	48.3	58.7
1964	49.7	53.2	53.3	55.5	56.4	61.5	63.3	64.8	66.5	63.8	55.5	53.1	58.0
1965	50.3	52.7	55.7	57.2	58.1	60.5	60.3	64.2	63.5	65.1	58.5	47.4	57.8
1966	48.7	50.5	53.9	61.6	58.0	62.7	62.5	62.9	65.7	63.6	57.0	50.8	58.2
1967	50.7	56.0	55.4	49.6	57.5	57.6	61.0	62.8	67.0	65.8	60.7	49.8	57.8
1968	46.8	55.7	60.2	58.8	56.9	63.0	64.2	68.1	68.5	64.5	55.9	49.3	59.3
1969	48.1	52.0	55.2	56.6	59.0	62.1	62.3	65.9	64.0	63.6	59.2	56.5	58.7
1970	55.0	57.3	59.1	55.8	61.3	61.6	62.9	61.0	66.7	59.9	57.5	52.9	59.2
1971	48.8	50.2	52.1	52.6	57.6	61.1	63.1	65.7	68.3	60.6	56.5	45.9	56.9
1972	44.5	50.0	56.1	56.3	60.5	60.8	63.3	62.3	64.6	62.2	55.5	46.3	56.9
1973	51.0	55.2	54.6	59.6	59.9	64.8	62.8	61.0	64.8	62.4	55.4	52.8	58.7
1974	51.1	53.5	55.4	57.5	58.0	61.5	63.7	64.1	64.5	64.4	56.7	51.7	58.5
1975	51.3	53.6	53.4	52.7	59.8	60.2	62.4	63.6	63.3	61.3	55.5	52.2	57.4
1976	51.5	53.0	53.2	56.0	60.2	65.7	64.5	66.3	64.3	63.6	59.0	51.8	59.1
1977	48.9	55.1	53.6	58.0	57.5	60.8	62.4	64.2	64.2	61.9	57.4	54.0	58.2
1978	53.2	54.5	58.9	56.8	62.5	61.7	62.7	64.4	67.9	63.3	54.2	47.4	52.0
1979	49.3	51.9	55.7	57.4	61.9	62.5	64.3	64.6	69.6	64.6	57.2	54.0	59.4
1980	52.5	56.8	56.6	58.6	58.4	61.5	64.3	62.4	64.7	64.1	58.6	53.1	59.3
1981	52.9	56.9	56.3	58.9	60.6	66.8	62.9	64.3	65.0	61.8	59.7	55.0	60.1
1982	48.8	55.7	55.0	58.2	60.0	60.8	63.4	65.3	67.4	65.1	55.9	52.6	59.0
1983	50.9	56.3	56.9	58.7	61.4	64.6	66.5	68.5	70.5	67.7	57.8	54.8	61.2
1984	53.5	54.5	59.7	58.5	63.8	63.1	66.2	65.4	70.7	62.2	56.4	51.0	60.4
1985	49.7	55.8	54.0	60.5	59.3	64.4	64.7	65.2	65.7	63.6	54.8	49.2	58.9
1986	54.3	56.8	59.3	59.0	60.2	63.9	63.8	62.7	62.7	63.1	59.7	51.2	59.7

# 35 - YEAR/MONTH VALUES

## TOTAL PRECIPITATION (INCHES) (FROM DAILY OBS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PAGE : 1

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1945	MISS	MISS	3.42	MISS	.78	MISS	MISS	MISS	MISS	1.11	MISS	10.55	MISS
1946	1.67	1.52	1.67	.02	.41	.00	.00	.00P	.00	.12	2.16	2.01	MISS
1947	1.07P	1.29P	3.13	.05	.60	.54	.00	.00P	.00	2.59P	.51P	.80	MISS
1948	.69	1.22P	2.16P	2.00P	.81P	.02	.00	.00	.01	.22P	.59P	3.60	MISS
1949	1.48	2.25	3.92	.00	.60	.00	.46	.06	.00	.26	.89	2.25	12.17
1950	6.39	1.44	2.14	.85	.56	.00	.00	.00	.00	2.17	3.93	5.29	22.77
1951	3.60	2.53	1.19	.65	.82	.00	.00	.19	.00	.88	3.73	5.84	19.43
1952	5.64P	1.15	3.37	.62	.16	.31	.00	.00	.00	.07	1.62	11.06	MISS
1953	2.80	.00	1.31	2.67	.17	.43	.00	.11	.00	.18	2.04	.18	9.89
1954	3.16	1.62	3.33	.97	.13	.05	.02	.03	.00	.08	1.89	4.80	16.08
1955	3.35	1.29	.36	1.02	.09	.00	.01	.00	.00	.08	1.38	10.30	17.88
1956	7.27	1.93	.00	1.68	.68	.02	.00	.00	.18	1.44	.06	.18	13.44
1957	2.48	3.41	2.18	1.34	3.41	.06	.00	.00	1.16	2.86	.59	2.95	20.44
1958	4.57	6.69	7.67	4.20	.22	.07	.00	.00	.00	.05	.06	1.19	24.80
1959	4.18	3.67	.23	.26	.01	.00	.00	.02	2.58	.00	.00	1.77	12.72
1960	3.62	3.25	2.01	.70	.55	.00	.00	.00	.00	.40	2.76	.72	14.01
1961	2.67	1.03	2.57	.70	.67	.00	.00	.02	.30	.04	3.69	1.98	13.67
1962	.88	5.66	2.13	.37	.00	.00	.00	.09	.24	8.18	.56	2.77	20.88
1963	2.95	2.08	3.18	4.01	.38	.00	.00	.02	.09	1.30	3.03	.55	17.59
1964	3.07	.12	1.95	.02	.15	.51	.00	.01	.00	1.30	4.52	4.43	16.08
1965	3.08	.85	1.80	2.75	.00	.00	.00	.03	.00	.11	3.98	2.94	15.54
1966	3.48	2.82	.66	.33	.11	.06	.09	.11	.10	.00	3.95	2.96	14.37
1967	8.35	.31	3.84	5.45	.07	1.19	.00	.01	.02	.41	.56	1.75	22.36
1968	3.83	1.91	2.54	.37	.12	.00	.00	.10	.01	.57	2.58	3.11	14.94
1969	7.99	7.18	.77	1.66	.00	.02	.00	.00	.04	2.09	.69	4.54	24.98
1970	6.40	1.52	1.08	.08	.03	.73	.00	.00	.00	1.10	5.80	4.89	21.63
1971	1.51	.38	2.43	.65	.09	.00	.00	.00	.20	.08	1.48	3.27	10.09
1972	.89	1.24	.15	.92	.00	.23	.00	.00	.81	4.42	4.99	2.55	16.20
1973	8.42	5.51	2.55	.01	.08	.00	.00	.00	.36	1.18	7.86	3.31	29.28
1974	2.88	1.70	3.90	2.30	.00	.06	.75	.00	.00	.86	.48	2.31	15.24
1975	1.94	2.80	5.43	1.44	.00	.03	.15	.04	.00	2.77	.27	.42	15.29
1976	.26	.64	1.16	.72	.00	.01	.01	.88	.41	.37	1.02	1.13	6.61
1977	1.37	.67	1.95	.06	.62	.00	.00	.01	.88	.19	1.98	3.25	10.98
1978	6.92	4.00	5.01	3.09	.00	.00	.00	.01	.23	.00	1.25	.54	21.05
1979	6.23	4.96	1.90	.93	.08	.00	.52	.00	.00	1.77	2.97	3.87	23.22
1980	3.55	6.18	1.33	1.14	.20	.00	.13	.00	.00	.09	.16	1.93	14.71
1981	5.24	1.57	3.85	.18	.20	.00	.00	.00	.05	1.65	5.53	4.24	22.52
1982	9.04	3.11	6.69	3.03	.00	.10	.01	.01	.84	2.69	5.07	2.85	33.44
1983	5.16	7.10	8.04	2.72	.38	.00	.00	.01	1.07	.28	4.63	6.08	35.47
1984	.41	1.90	1.27	.64	.01	.18	.00	.04	.03	2.39	5.18	1.66	13.81
1985	.52	1.64	2.71	.12	.01	.14	.06	.14	.35	.81	4.68	2.02	13.10
1986	3.33P	6.29	4.77	.56	.10	.00	.01	.00	.31	.09	.12	1.38	MISS

# 36 - WEATHER CONDITIONS

ATMOSPHERIC PHENOMENON  
(FROM DAILY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : ALL

MONTH	HOURS (LST)	ISIM	RAIN E/OR DRIZZLE	FREEZE RAIN & FREEZE DRIZZLE	SNOW E/OR SLEET	HAIL	% OF OBS WITH PRECIP	FOG	SMOKE E/OR HAZE	BLOWING SNOW	DUST E/OR SAND	% OBS W/OBST VISION	TOTAL NO. OF OBS.
JAN	DAILY	1.4	40.7	.0	.6	.9	40.8	45.8	57.5	.0	.0	69.7	1064
FEB	DAILY	1.7	40.5	.0	.5	.4	40.6	36.6	47.4	.0	.0	56.5	958
MAR	DAILY	.6	40.6	.0	.3	.7	40.6	17.0	30.0	.0	.1	38.0	1087
APR	DAILY	1.6	29.1	.0	.0	1.0	29.1	9.8	27.0	.0	.0	30.8	1050
MAY	DAILY	.5	22.4	.0	.0	.0	22.4	11.8	29.1	.0	.0	34.4	1085
JUN	DAILY	.3	18.2	.0	.0	.0	18.2	12.5	26.7	.0	.0	34.0	1050
JUL	DAILY	.5	20.7	.0	.0	.0	20.7	23.7	39.1	.0	.0	50.4	1094
AUG	DAILY	.7	25.2	.0	.0	.0	25.2	23.6	39.8	.0	.0	50.9	1103
SEP	DAILY	.4	17.4	.0	.0	.0	17.4	21.2	49.0	.0	.0	55.9	1065
OCT	DAILY	.5	22.7	.0	.0	.1	22.7	29.4	57.5	.0	.0	64.7	1107
NOV	DAILY	.4	32.2	.0	.1	.4	32.2	39.7	59.9	.0	.0	68.9	1062
DEC	DAILY	1.1	39.2	.0	.4	.4	39.2	48.8	58.2	.0	.0	73.1	1118
ANN	DAILY	.8	29.0	.0	.2	.3	29.0	26.7	43.5	.0	.0	52.3	12843

NOTES :

\* = PERCENT < .05

# 37 - STATION CLIMATIC SUMMARY

23239 ALAMEDA, CA  
 PERIOD OF RECORD (HOURLY): 1955-1986 PERIOD OF RECORD (DAILY): 1945-1986  
 LAT.: 37 47N LONG.: 122 19W ELEV.: 15 FT

TEMPERATURE (DEG F)		PRECIPITATION (INCHES)		REL HUMID (%)		WIND (KTS)		MEAN NO. OF DAYS WITH (G)		PRECIP (INCHES)		ISNOV-1		TEMP (DEG F)																	
MEAN	EXTREME	PRECIP.	ISNOV-1	24H (LST)	124H (LST)	FT. PREVAI	MAXICVR	INCHES	IFALL (M)	WITH IFOG	MAXIMIN	MIN	MAX	MIN	MAX																
MAXIMIN	AVG	MAXIMIN	MEAN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN																
JAN 55	44	50	72	30	.4	9.0	.3	5.3	T	T	T	83	70	.27	42	40	NNW	7	52	OVR	10	3	0	0	0	14	0	0	19	0	
FEB 59	47	54	79	34	.3	7.2	T	1.8	T	T	T	82	66	.30	44	40	W	8	59	OVR	9	2	0	0	0	10	0	0	9	0	
MAR 62	48	55	86	36	.3	8.0	T	1.7	T	T	T	79	60	.30	44	40	W	10	50	OVR	9	2	0	0	0	5	0	1	6	0	
APR 65	50	58	92	38	.1	5.5	T	1.8	0	0	0	79	57	.31	45	30	W	10	46	SCT	6	1	0	0	0	3	0	3	2	0	
MAY 67	52	60	100	42	T	3.4	T	1.4	0	0	0	81	56	.34	48	25	W	11	41	CLR	2	0	0	0	0	4	0	4	0	0	
JUN 70	54	63	101	48	T	1.2	T	1.0	0	0	0	84	57	.38	51	25	W	11	41	CLR	1	0	0	0	0	4	1	6	0	0	
JUL 71	55	63	101	48	T	.8	T	.8	0	0	0	86	59	.41	53	20	W	10	35	CLR	0	0	0	0	0	7	0	7	0	0	
AUG 71	56	64	102	40	T	.9	T	.3	0	0	0	87	60	.42	54	20	W	9	35	CLR	1	0	0	0	0	7	0	7	0	0	
SEP 74	57	66	106	50	T	2.6	T	2.5	0	0	0	84	55	.42	53	25	W	9	42	CLR	1	0	0	0	0	6	1	11	0	0	
OCT 70	55	63	101	44	.1	8.2	T	3.5	0	0	0	81	55	.38	51	25	W	8	48	CLR	4	1	0	0	0	9	0	8	0	0	
NOV 63	50	57	85	38	.2	7.9	T	2.7	T	T	T	80	62	.32	46	30	W	7	53	OVR	8	2	0	0	0	12	0	1	3	0	
DEC 56	45	51	73	27	.3	11.1	.2	3.7	T	T	T	83	66	.28	43	35	NNW	7	62	OVR	9	2	0	0	0	15	0	0	15	0	
ANN 65	51	59	106	27	1.8	35.5	6.6	5.3	T	T	T	82	60	.34	48	35	W	9	62	CLR	60	11	0	0	0	3	95	3	48	53	0
POR 42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42

NOTES:  
 T = TRACE AMOUNTS ( < .05. < .5 INCHES  
 # = MEAN NO. DAYS < .5 DAYS  
 % = PRESSURE ALTITUDE IN TENS OF FEET (I.E., 50 = 500 FEET)  
 @ = NAVY STATIONS REPORTED HAIL AS SNOWFALL  
 NWS STATIONS REPORTED HAIL AS SNOWFALL FOR THE PERIOD JULY 1948-DECEMBER 1955.  
 + = THE PREDOMINANT SKY CONDITION  
 \* = VISIBILITY IS NOT CONSIDERED  
 & = ANNUAL TOTALS MAY DIFFER FROM THE SUM OF THE MONTHLY VALUES BECAUSE OF ROUNDING  
 ~ = 24 HOUR MAXIMUM PRECIPITATION AND SNOWFALL ARE DAILY TOTAL VALUES (MID-NIGHT TO MID-NIGHT TOTALS).